

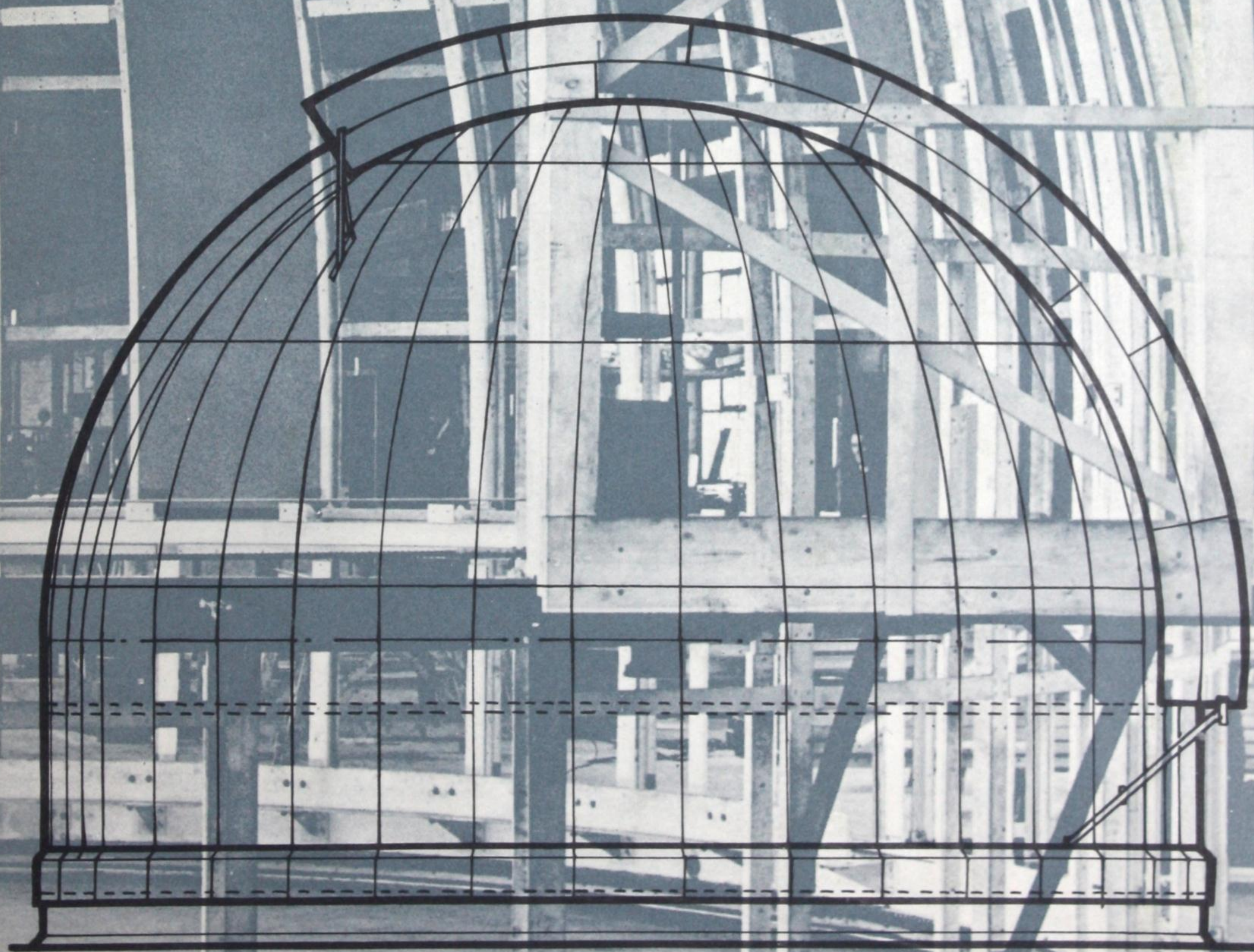
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HOPE'S PATENT GLAZING



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By.....By.....



Publication No. 333

November 1959

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PATENT GLAZING
and
LANTERN LIGHTS

HENRY HOPE & SONS LTD

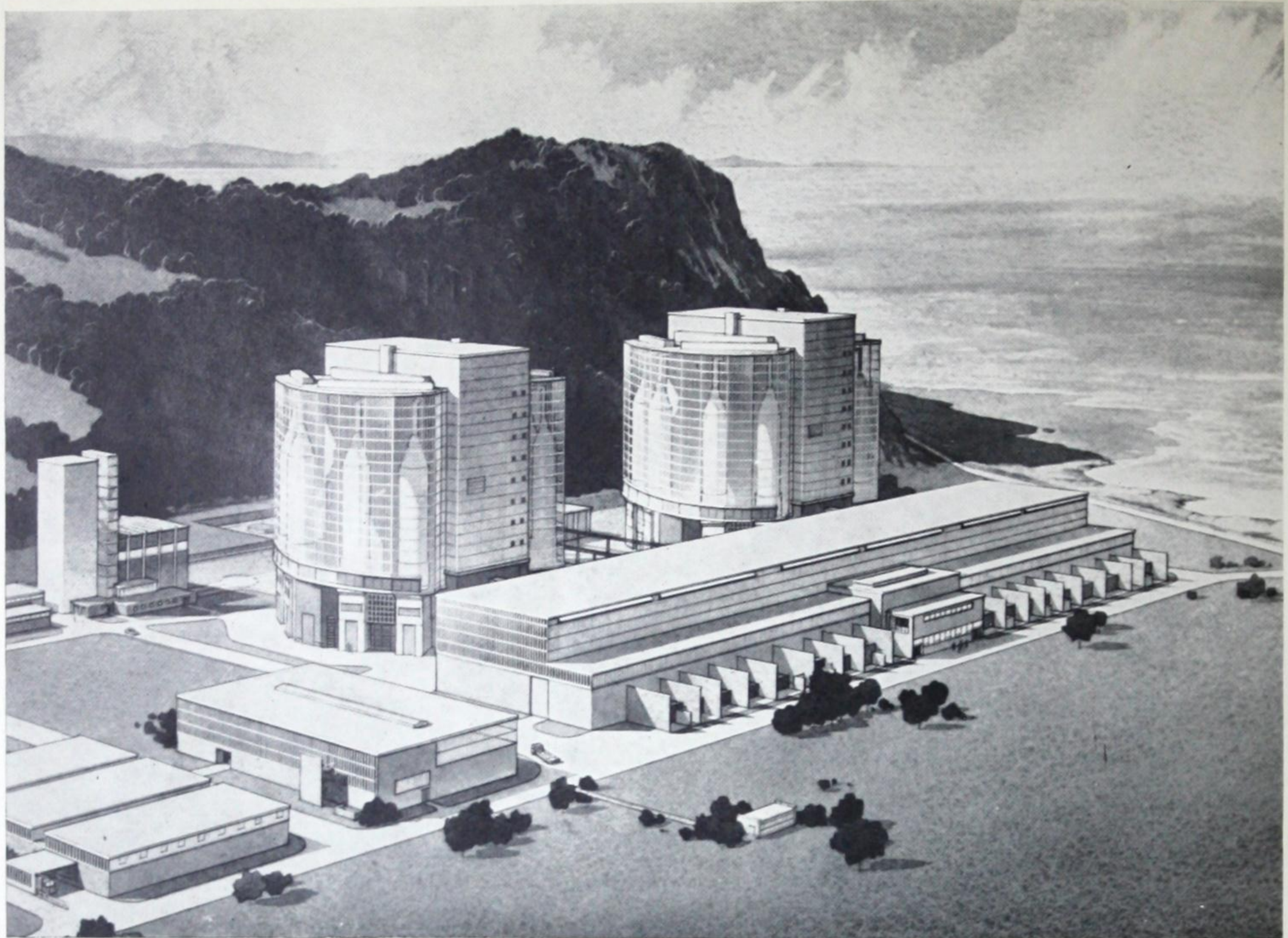
HALFORD WORKS • SMETHWICK • BIRMINGHAM

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250,000 sq. ft.
HOPE'S *Vertical Patent Glazing*

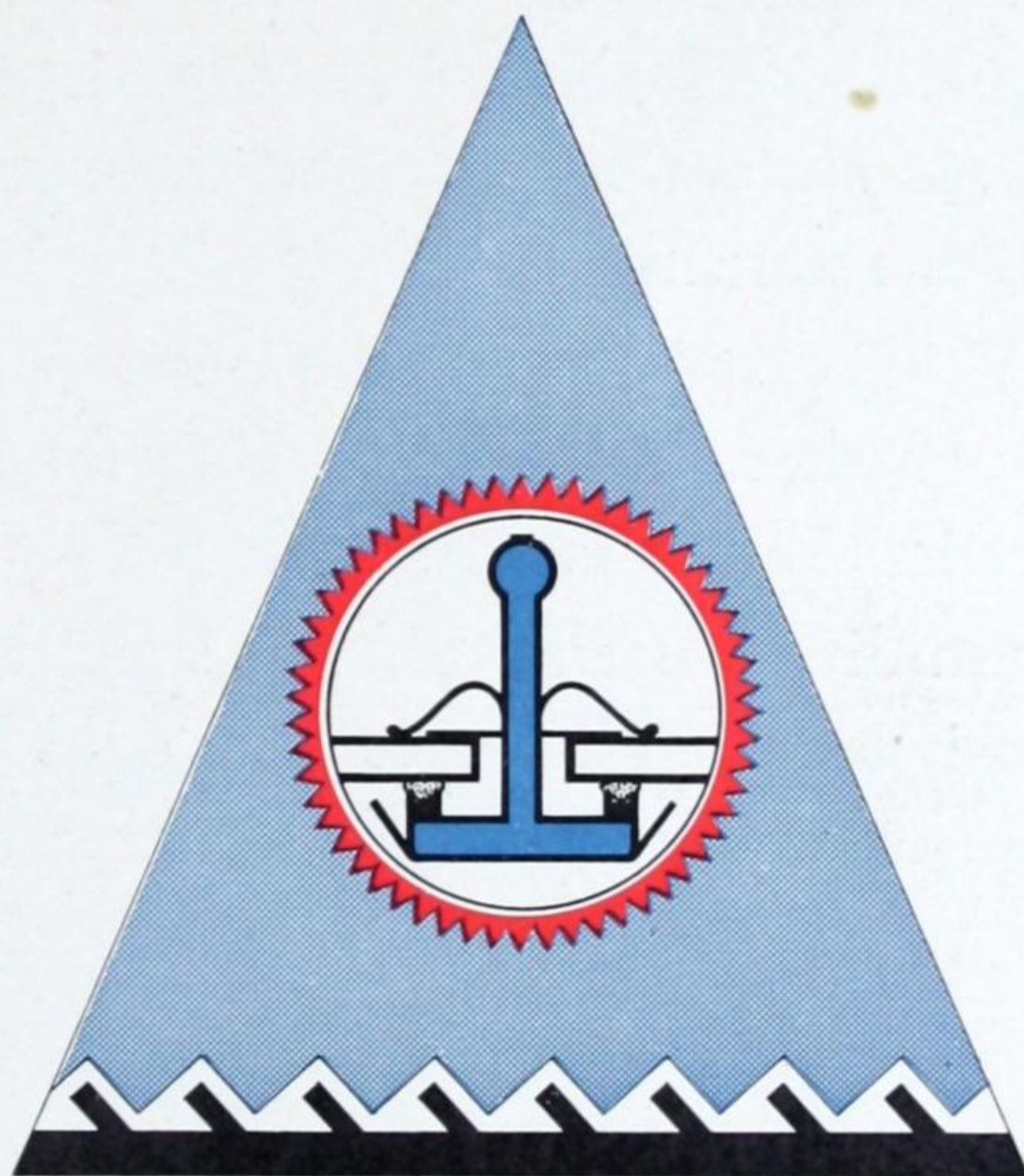


HUNTERSTON NUCLEAR GENERATING STATION · AYRSHIRE
for the South of Scotland Electricity Board

GEC • Simon-Carves Atomic Energy Group
Howard V. Lobb & Partners, Consultant Architects

HOPE'S Lead-clothed Steel Glazing Bars (*see pages 7 and 10*) were chosen for this Nuclear Generating Station which faces the Isle of Arran across the Firth of Clyde. The two Reactor Buildings, approximately 200 feet high, are largely enclosed in our Patent Glazing. The contract includes both Single and Double Patent Glazing, and also electrically controlled continuous opening lights.

HOPE'S PATENT GLAZING



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Telegrams · Buntline Rath*

1818 HOPE'S 1959

WE have been engaged in the Patent Glazing trade for over 70 years, and our staff have experience of many types of roof construction in widely differing conditions of climate and atmosphere. Each type of glazing bar illustrated in this catalogue has special characteristics which have been developed in the light of our long practical experience, and we like our customers to give us full particulars of local conditions so that we can advise on the type of glazing bar most suited to the particular contract.

HOPE'S Double Patent Glazing achieves a high degree of thermal insulation without restricting the admission of daylight. To this end our Double Patent Glazing Bars (*pages 10 & 11*) provide cushioned and non-conducting support for two layers of glass, between which is enclosed a cavity of still air. Heat loss through this system is half that through single patent glazing, and condensation is much reduced.

It is customary to use $\frac{1}{4}$ in. cast glass for the outer pane, and wire reinforced glass for the inner pane so that the risk of falling fragments in case of fire or breakage may be reduced as much as possible.

In extreme cases of humidity we also offer a specially insulated aluminium bar which has been designed to eliminate the 'cold bridge' element (direct conduction of cold from external to internal surfaces of the bars themselves).

Ventilation Experience over many years in our own engineering shops has convinced us that no system of forced ventilation, however efficient, is as satisfactory to the man on the bench as natural ventilation: the open window or rooflight he can see for himself.

Opening lights, whether in roof or sidewall glazing, are usually hinged at top, and can be of any size, ranging from single-pane ventilators to continuous opening lights 200 ft. long (*see pages 26-37, and 40*).

Sliding Roof Lights Under certain conditions hinged opening lights may not be sufficiently positive, and where sudden accumulations of steam or fumes have to be cleared quickly, as in laundries or foundries, HOPE'S Sliding Glazed Roof Lights have been found very successful.

By this means large apertures in the roof can be opened up at the touch of an electric push-button, and the 'open air' effect has been most popular with workpeople.

(Details on page 38)

Gearing We design and manufacture gearing for operating ventilators in both roof and sidewall glazing, and have published a comprehensive catalogue on this subject of ventilation by remote control, copies of which we shall be pleased to supply on request. *List No. 267*

Domes, Lanterns, Laylights and Skylights

We close this book with a brief illustrated review of some of the interesting work produced by our Lantern Light Department.

FIXING & GLAZING

We have a large staff of trained engineers engaged in the erection of Patent Glazing, Lantern Lights and Gearing in all parts of the British Isles.

They have been specially trained in all branches of their work, and can fix a single domelight or organise the glazing of a large acreage of patent glazing complete with opening lights and electric gearing.

We recommend that all installations great and small, be put in our hands, and our estimates (except for export contracts) invariably include for fixing and glazing complete on site. For large overseas contracts we are always prepared to send a skilled supervisor to ensure that our materials are properly installed.



B.S.A. Waverley Works

Holland W. Hobbiss, F.R.I.B.A., Architect

Specifications for Architects & Engineers

PATENT GLAZING to consist of HOPE'S Lead-clothed Glazing Bars, constructed of a rolled steel bulb tee bar, dipped in calcium plumbate paint stoved on and totally enclosed in a jointless lead sheath hermetically sealed.

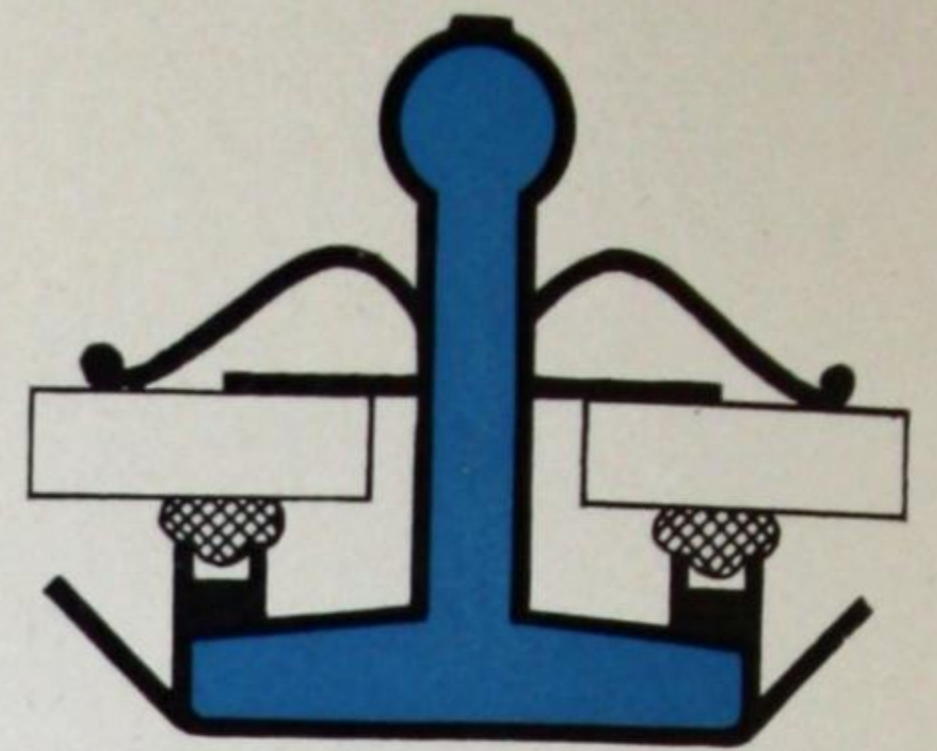
1 The lead sheath to be formed with a ridge on the bulb, two independent wings for dressing on to the glass and to have internal condensation channels.

The glazing bar to be of a suitable strength for the span involved.

The glass to be bedded on greased asbestos cords, fitted into grooves in the lead sheath and held in position by means of a brass glass stop fitted to foot of bar and glazed with $\frac{1}{4}$ " . . . glass.

Bars to be spaced at $24\frac{1}{2}$ " centres for 24" glass.

for details see page 7



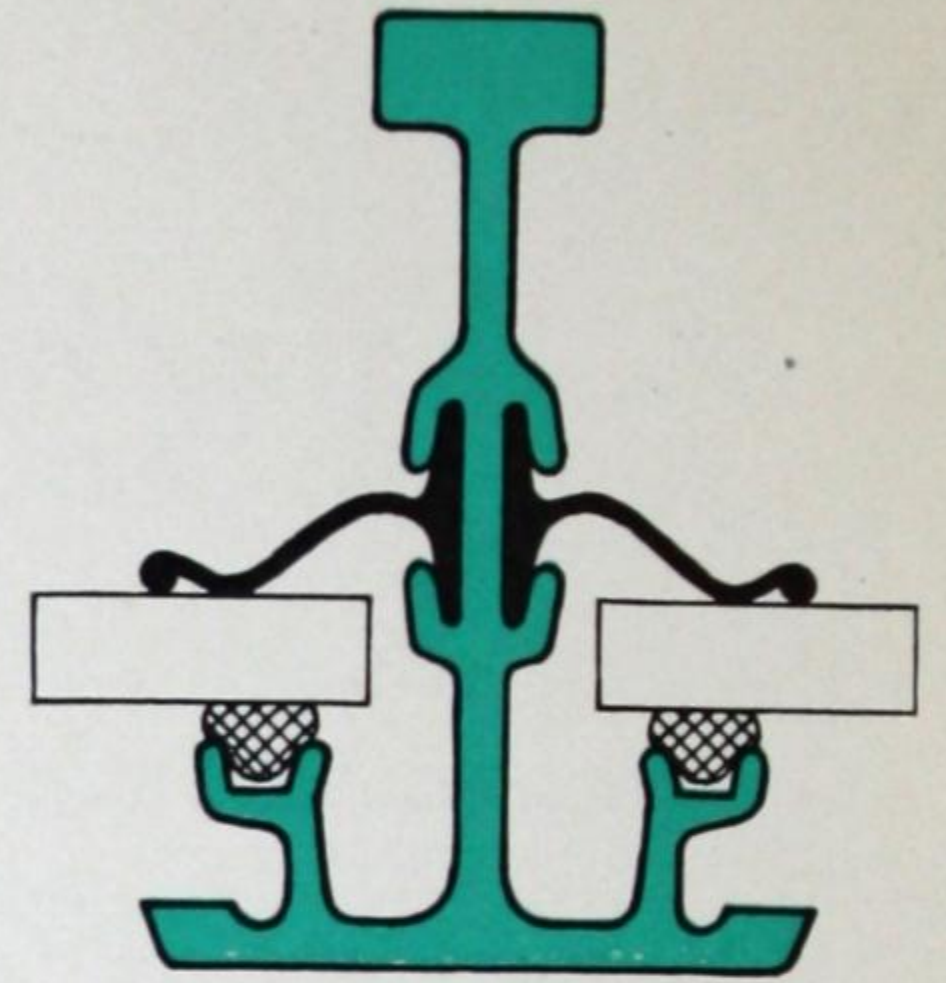
PATENT GLAZING to consist of HOPE'S Extruded Aluminium Glazing Bars in alloy HE9WP, bar to have incorporated in it continuous extruded lead wings for dressing on to the glass and suitable grooves for fitting asbestos cord.

2 The glazing bar to be of suitable strength for the span involved.

The glass to be bedded on greased asbestos cord fitted into grooves in the bar and held in position by an extruded aluminium glass stop at foot of bar fixed by means of aluminium bolt and nut, and glazed with $\frac{1}{4}$ " . . . glass.

Bars to be spaced at $24\frac{1}{2}$ " centres for 24" glass.

for details see page 8

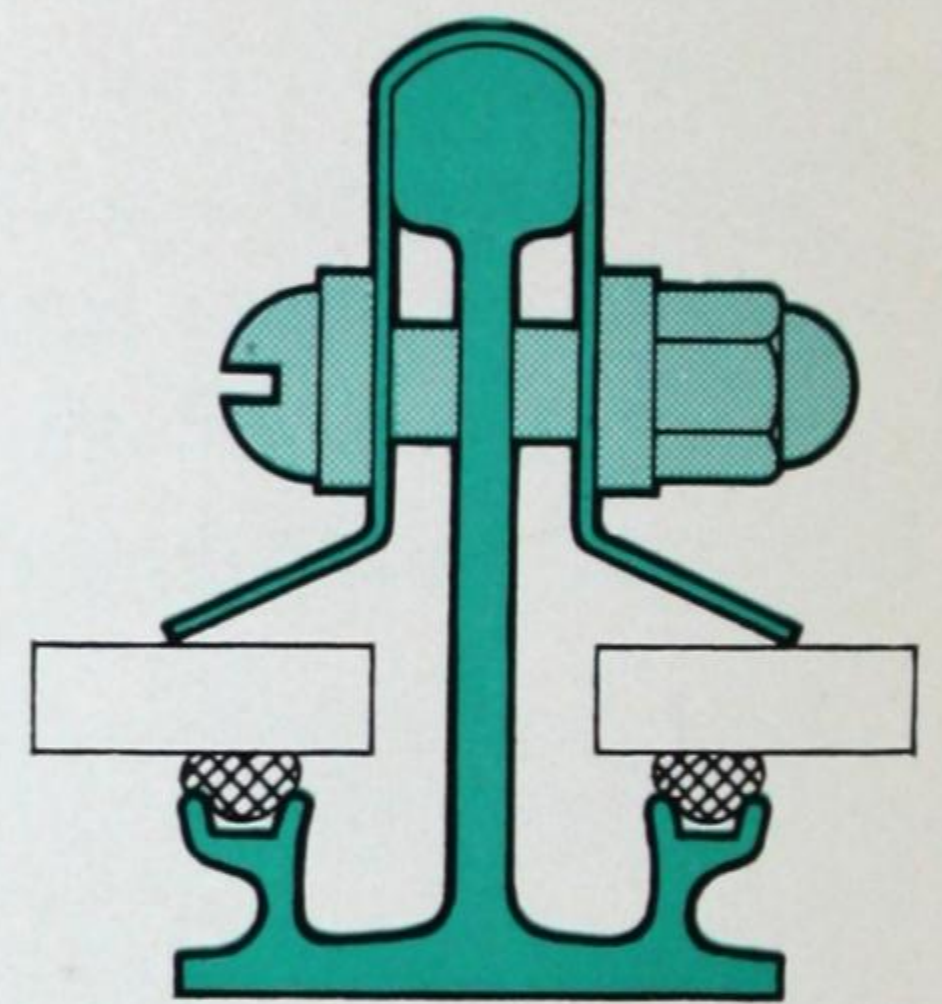


PATENT GLAZING to consist of HOPE'S Extruded Aluminium Glazing Bars in alloy HE9WP, and fitted with a continuous aluminium capping of 21 gauge commercially pure aluminium. The capping to be secured to the bar by means of aluminium screws and domed nuts. The glazing bar to incorporate suitable grooves for fitting asbestos cord and to be of suitable strength for the span involved.

3 The glass to be bedded on greased asbestos cord fitted into grooves in the glazing bar and held in position by an extruded aluminium glass stop at foot of bar and glazed with $\frac{1}{4}$ " . . . glass.

Bars to be spaced at $24\frac{3}{8}$ " centres for 24" glass.

for details see page 9



Glass

HOPE'S Patent Glazing is usually glazed with one of the three illustrated on the right; all are $\frac{1}{4}$ " thick, maximum length 11'.

Polished Plate Glass, $\frac{1}{4}$ " thick, has also been used in vertical patent glazing, and can be supplied reinforced with square or hexagon wire mesh.

(Max. lengths: Polished Plate 10' 0"; wired 9' 0")

32 oz. Clear Sheet Glass is frequently used for vertical glazing in lengths up to 6' 8", but is not supplied with wire reinforcement.

Heat-absorbing Glass (not wire reinforced) is available in lengths up to 10' 0".



$\frac{1}{4}$ " ROUGH CAST GLASS



$\frac{1}{4}$ " WIRED CAST GLASS



$\frac{1}{4}$ " GEORGIAN WIRED CAST GLASS

HOPE'S *Lead-clothed Steel* GLAZING

Lead ridge prevents damage to sheath when planks are placed on top of bar

FULL SIZE SECTIONS

$1\frac{1}{4}" \times 1\frac{1}{2}" \times \frac{3}{16}"$ Steel Tee stove painted and sheathed in lead

Continuous double lead wings dressed on to glass for perfect weathering



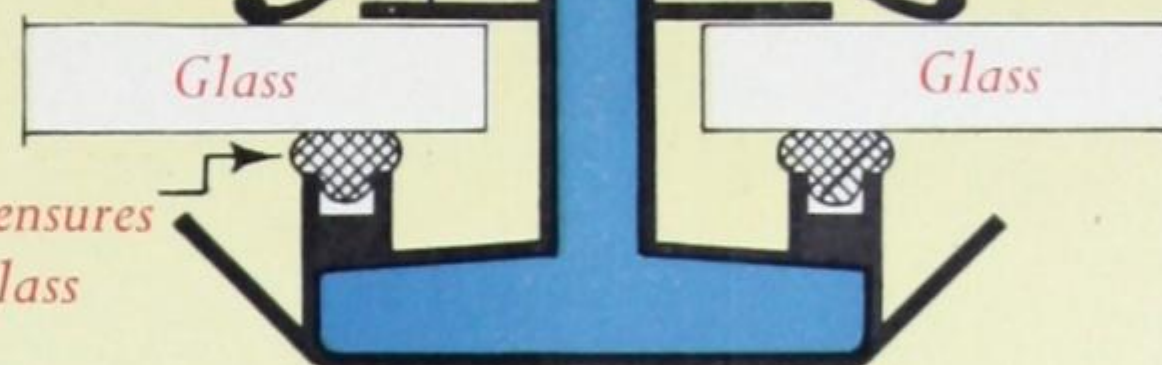
Greased asbestos cord ensures perfect seating of glass

B1 Bar for spans up to 7' 6"

For purposes of calculation, weight per foot super of B1 Bar with $\frac{1}{4}"$ glass, can be taken as $5\frac{1}{4}$ lb

Bulb at top of bar adds strength and rigidity

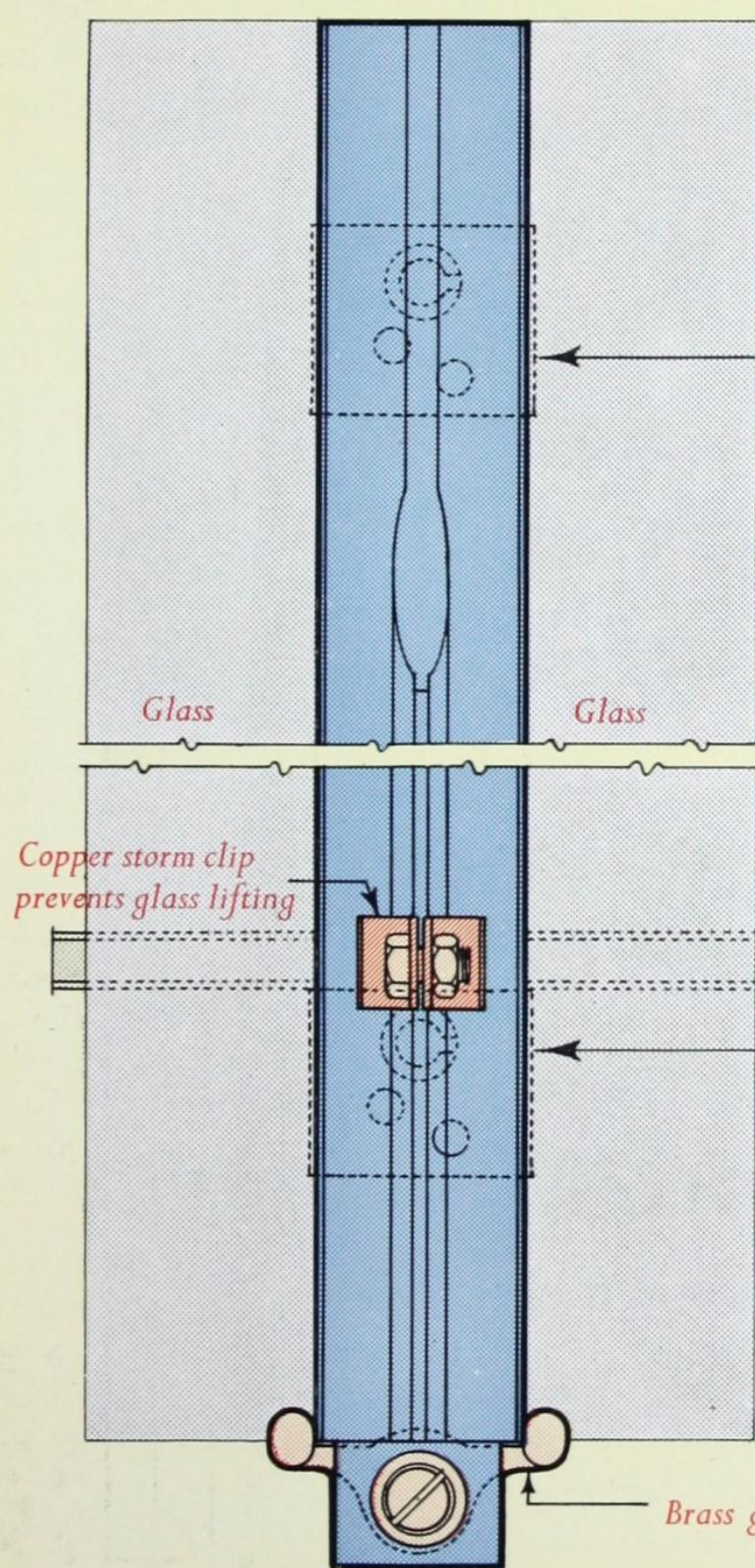
$1\frac{1}{4}" \times 2\frac{1}{4}" \times \frac{3}{16}"$ Steel Tee stove painted and sheathed in lead



O3 Bar for spans up to 11' 0"

For purposes of calculation, weight per foot super of O3 Bar with $\frac{1}{4}"$ glass, can be taken as $5\frac{3}{4}$ lb

PLAN VIEW



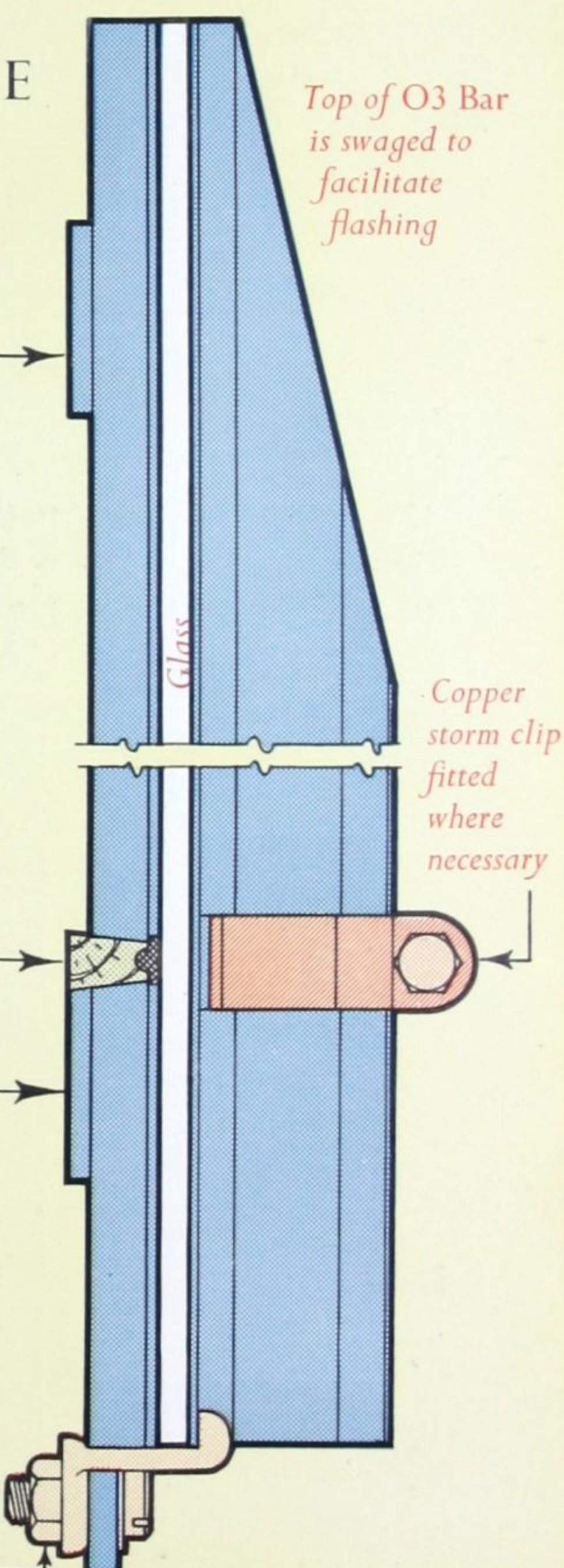
HALF FULL SIZE DETAILS

ONE-HOLE FIXING PLATE for Steelwork

ONE-HOLE FIXING PLATE for Steelwork

Brass glass stop secured by $\frac{3}{8}"$ dia. brass nut and bolt

SIDE VIEW



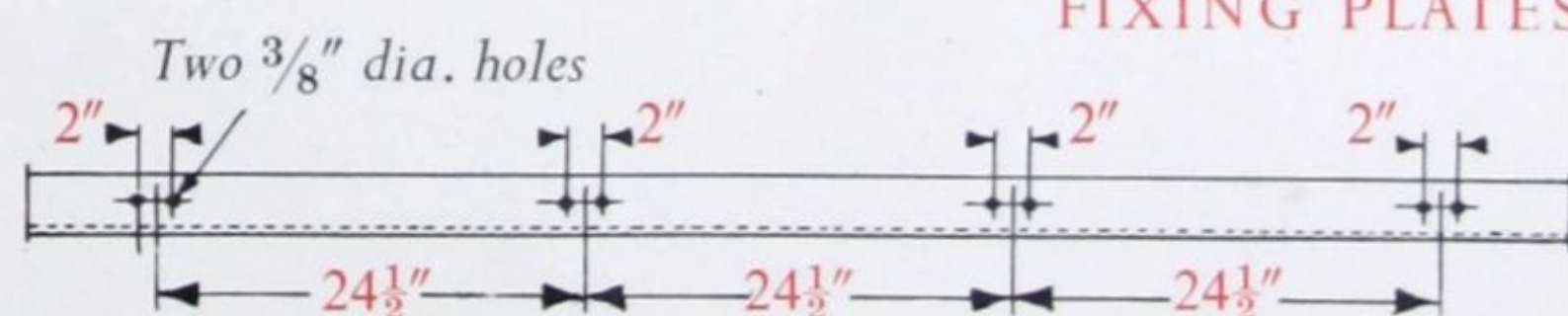
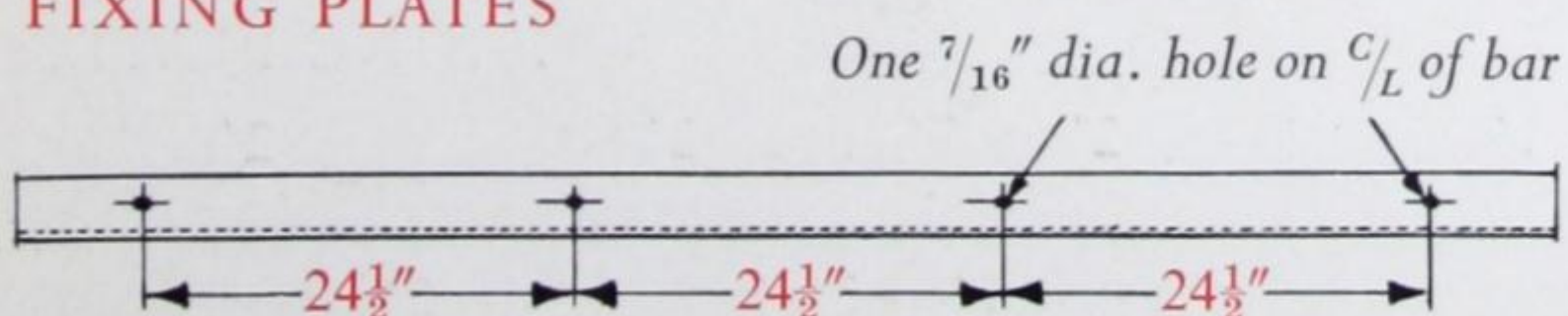
Top of O3 Bar is swaged to facilitate flashing

Copper storm clip fitted where necessary

ONE-HOLE FIXING PLATES

STEELWORK DRILLING POSITIONS

TWO-HOLE FIXING PLATES



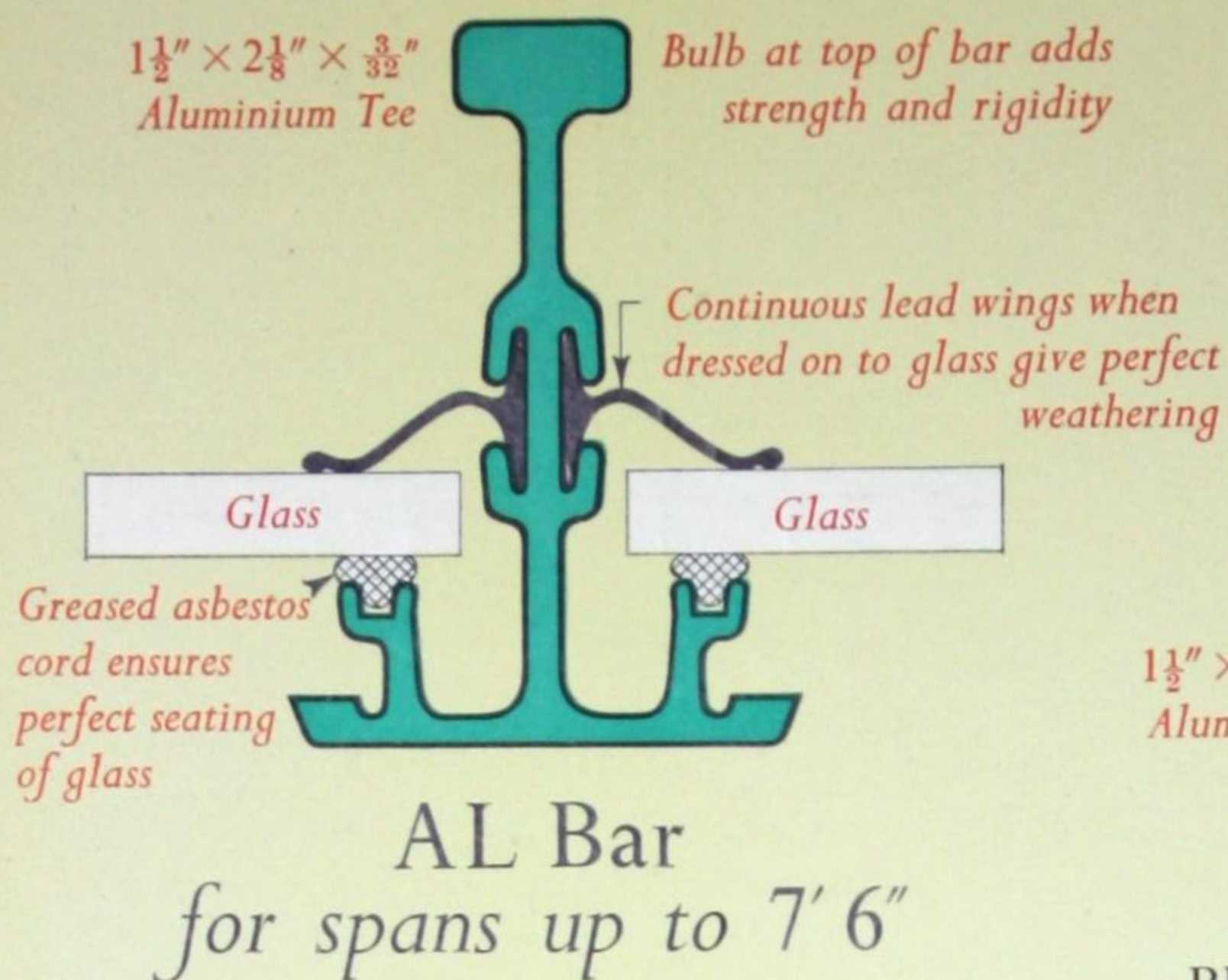
Bars are usually spaced at $24\frac{1}{2}"$ centres for 24" glass but these centres can be varied.

Unless otherwise stated it will be assumed that fixing holes in purlins will be drilled to standard back-marks.

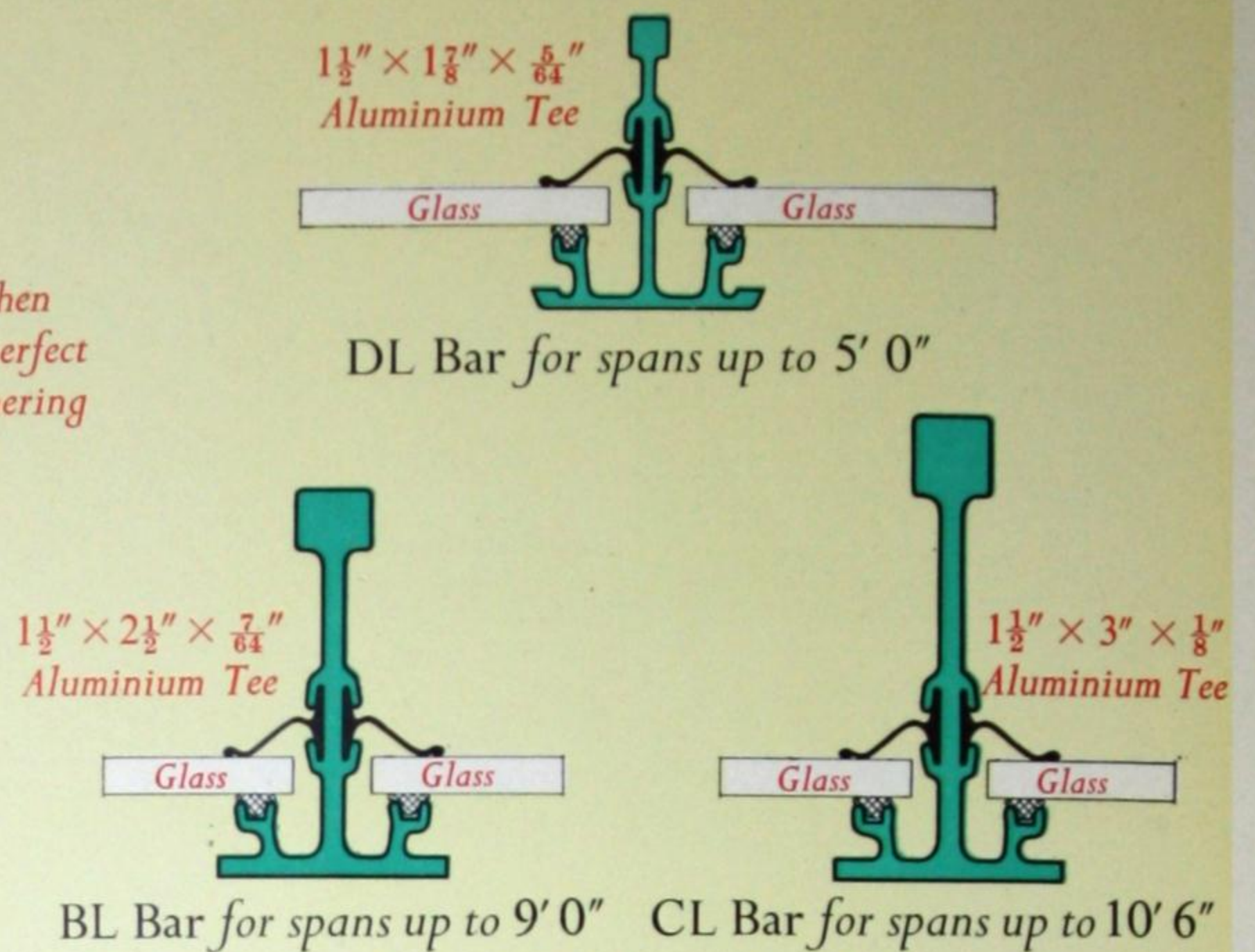
See page 10 for Lead-clothed Double Glazing Bar

HOPE'S Aluminium Glazing with Lead Wings

FULL SIZE

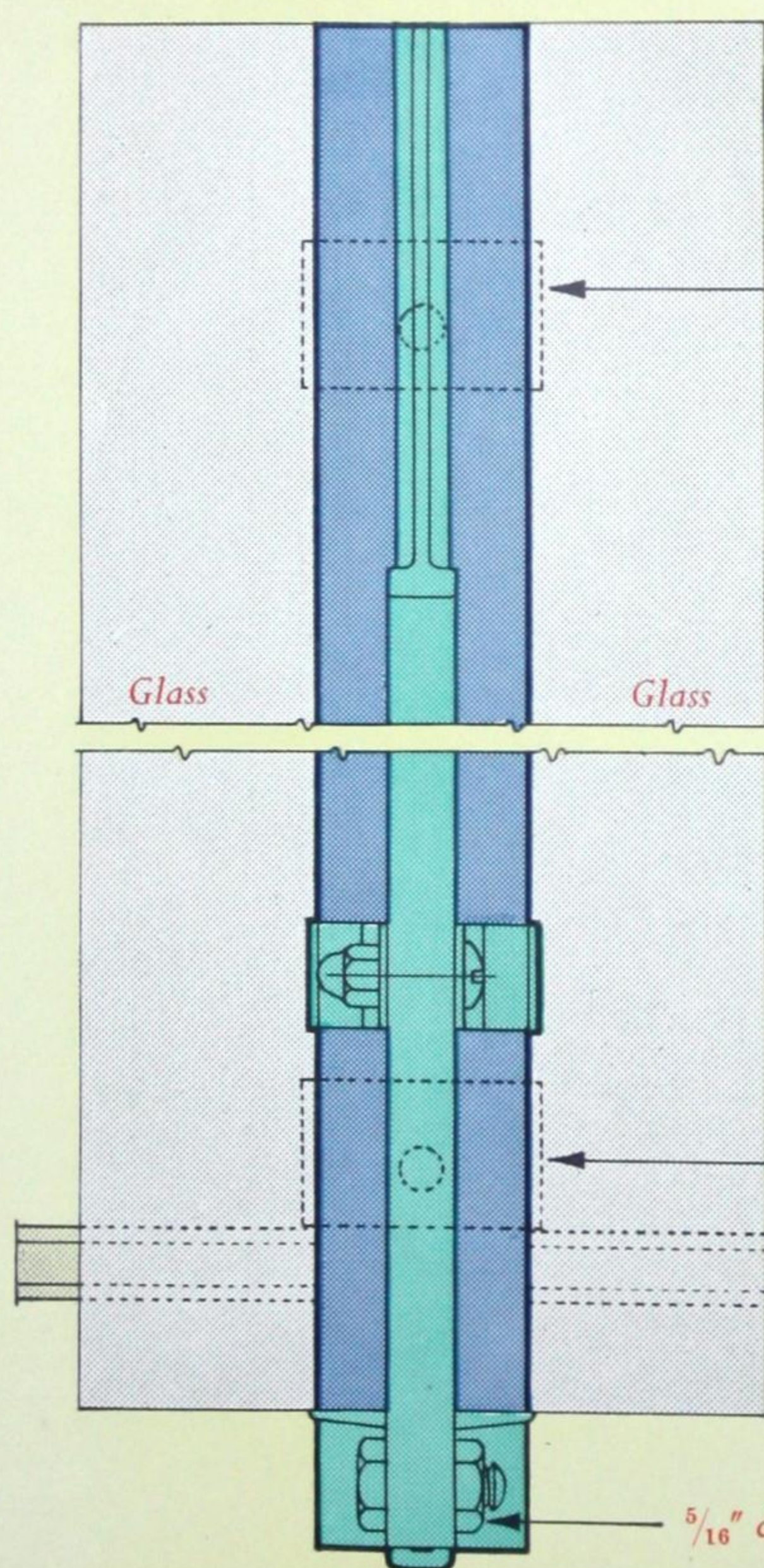


HALF FULL SIZE



For purposes of calculation, weight per foot super of aluminium glazing bars on this page with $\frac{1}{4}''$ glass, can be taken as 4 lb

PLAN VIEW



HALF FULL SIZE DETAILS

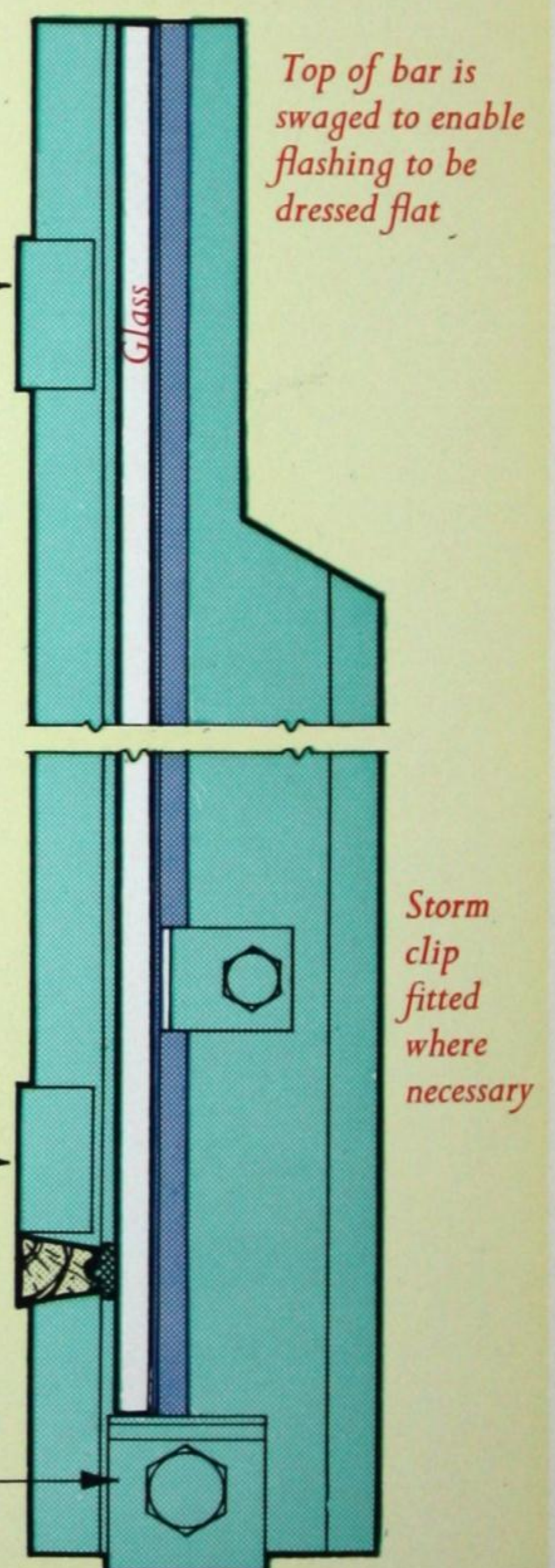
ONE-HOLE FIXING PLATE for Steelwork

ONE-HOLE FIXING PLATE

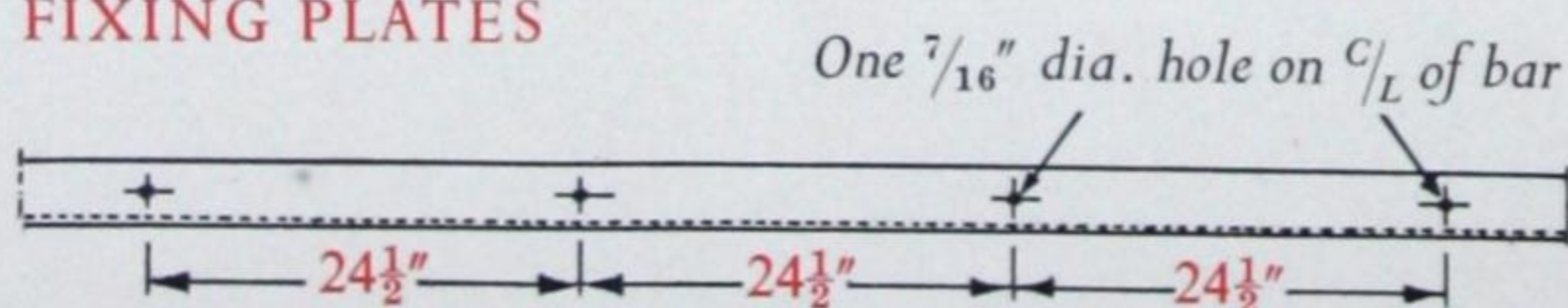
Draught fillet with asbestos cord seating for glass

Aluminium glass stop and $\frac{5}{16}''$ dia. aluminium nut and bolt

SIDE VIEW

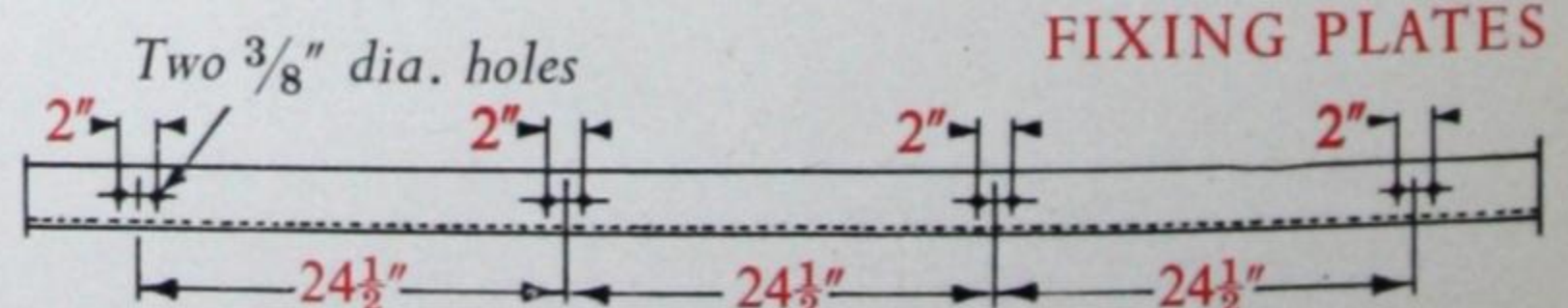


ONE-HOLE FIXING PLATES



STEELWORK DRILLING POSITIONS

TWO-HOLE FIXING PLATES

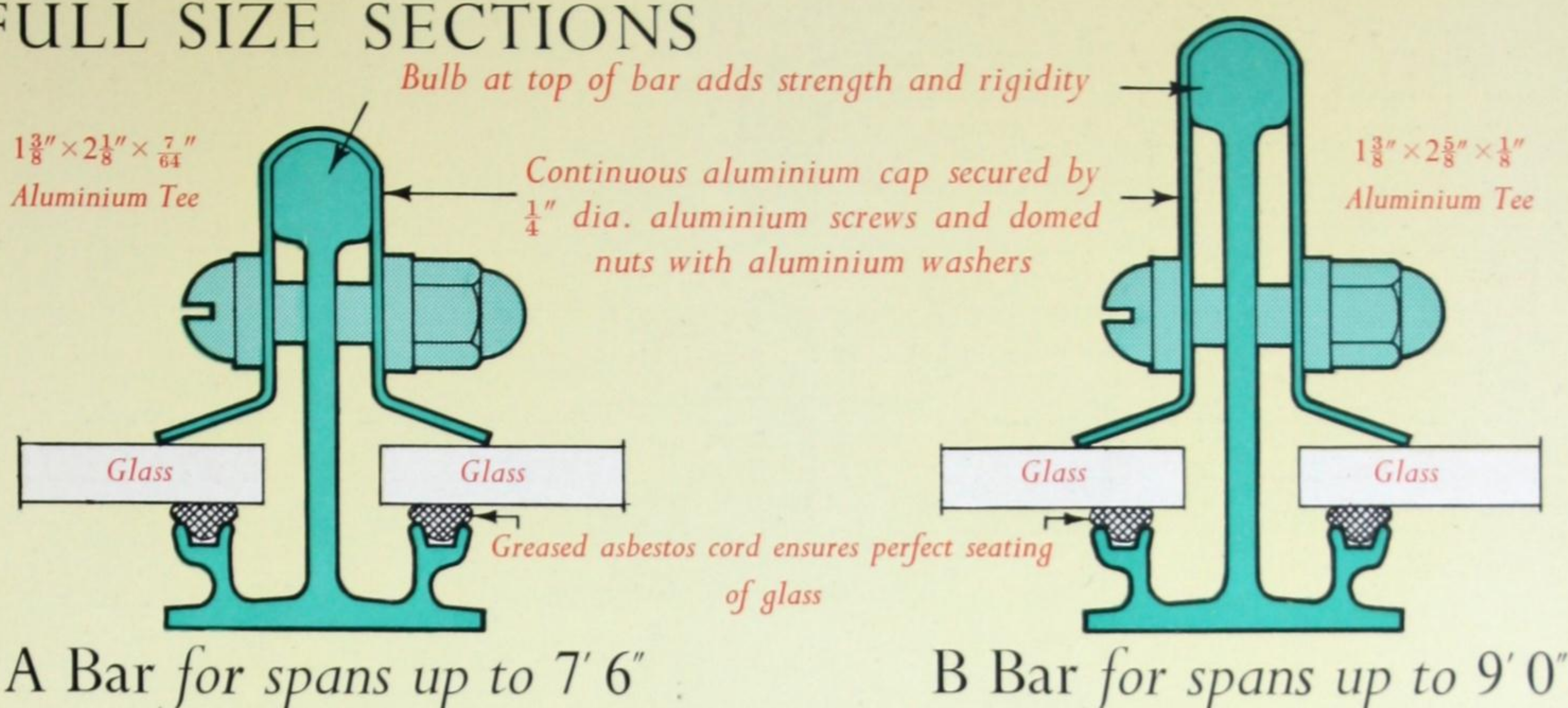


Bars are usually spaced at 24 $\frac{1}{2}''$ centres for 24" glass but these centres can be varied. Unless otherwise stated it will be assumed that fixing holes in purlins will be drilled to standard back-marks.

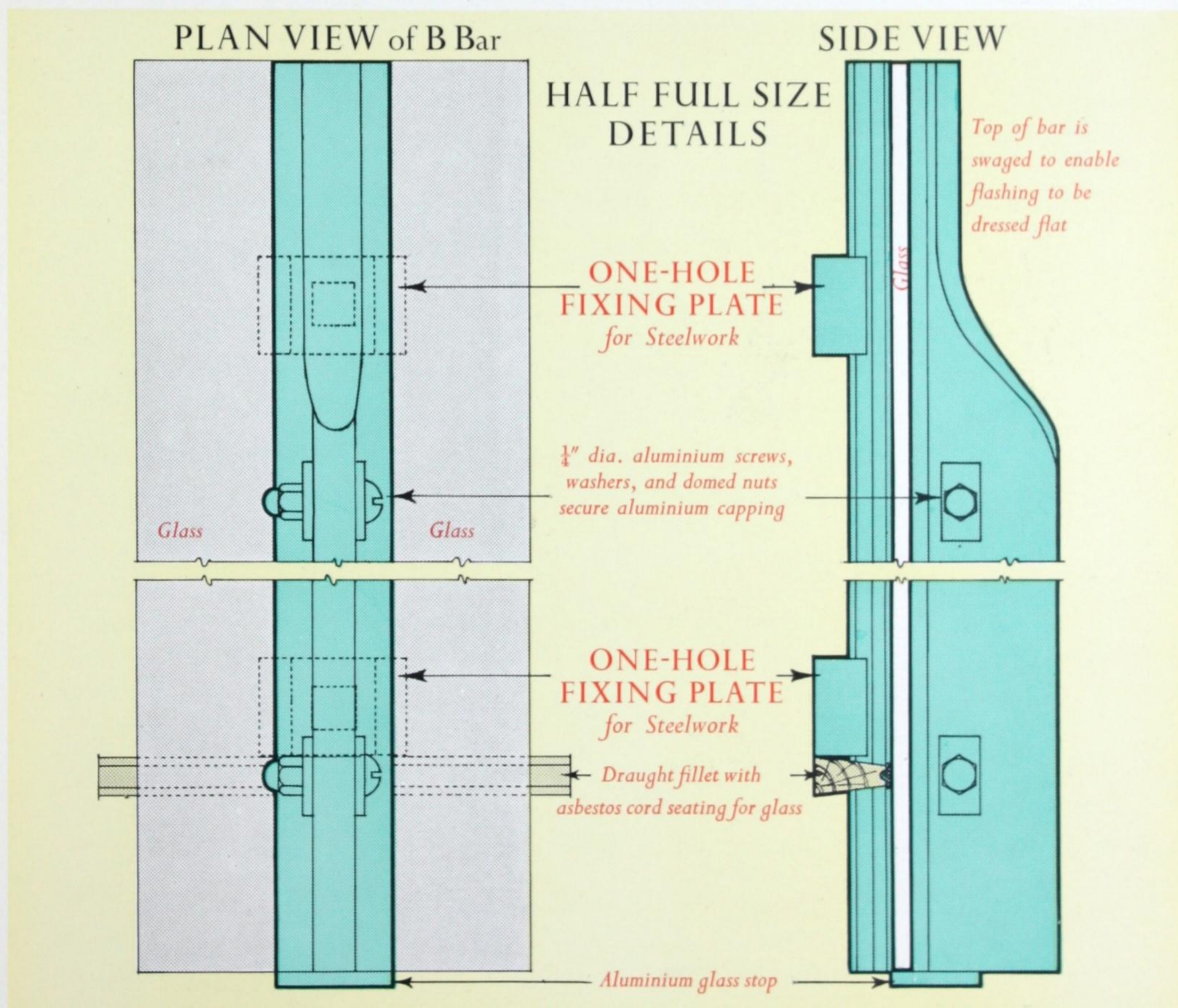
See page 11 for Aluminium Double Glazing Bar

HOPE'S Aluminium Glazing with Aluminium Capping

FULL SIZE SECTIONS



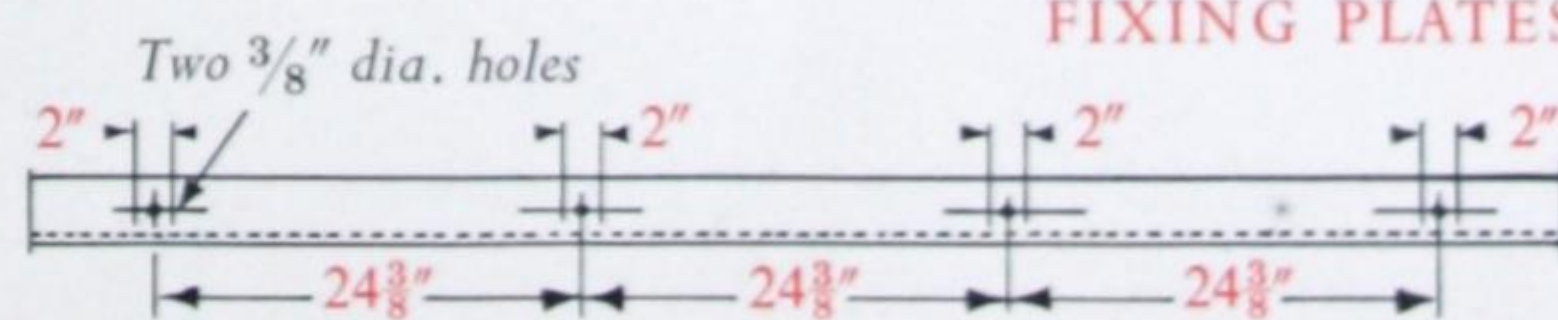
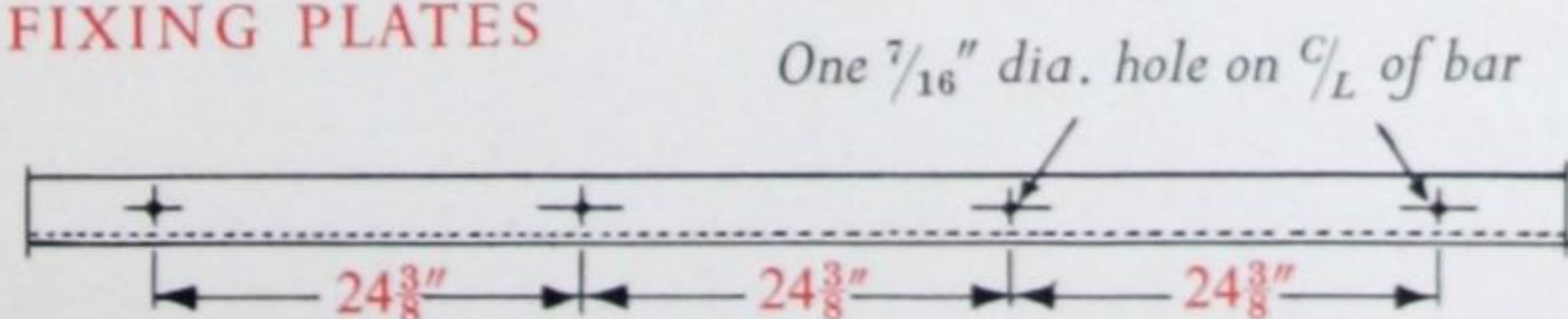
For purposes of calculation, weight per foot super of aluminium glazing bars on this page with 1/4" glass, can be taken as 4 lb



ONE-HOLE FIXING PLATES

STEELWORK DRILLING POSITIONS

TWO-HOLE FIXING PLATES



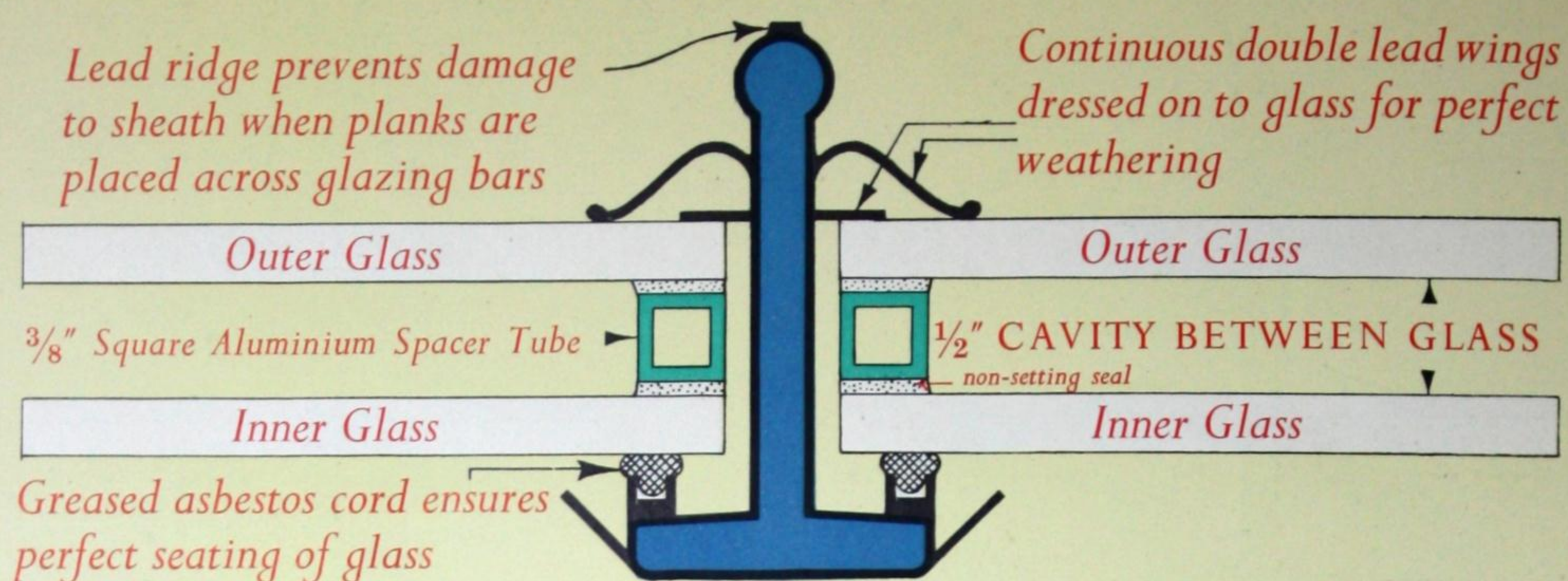
Bars are usually spaced at 24 3/8" centres for 24" glass but these centres can be varied.

Unless otherwise stated it will be assumed that fixing holes in purlins will be drilled to standard back-marks.

See page 11 for Aluminium Double Glazing Bar

HOPE'S *Lead-clothed Steel Double Glazing*

FULL SIZE SECTION



DO3 Bar for spans up to 10' 0"

For purposes of calculation, weight per foot super of DO3 Bar including 2 sheets of $\frac{1}{4}$ " glass can be taken as $9\frac{1}{4}$ lb

HOPE'S Double Patent Glazing is recommended for buildings where the conservation of artificial heat and the reduction of condensation are important, *for the following reasons:*

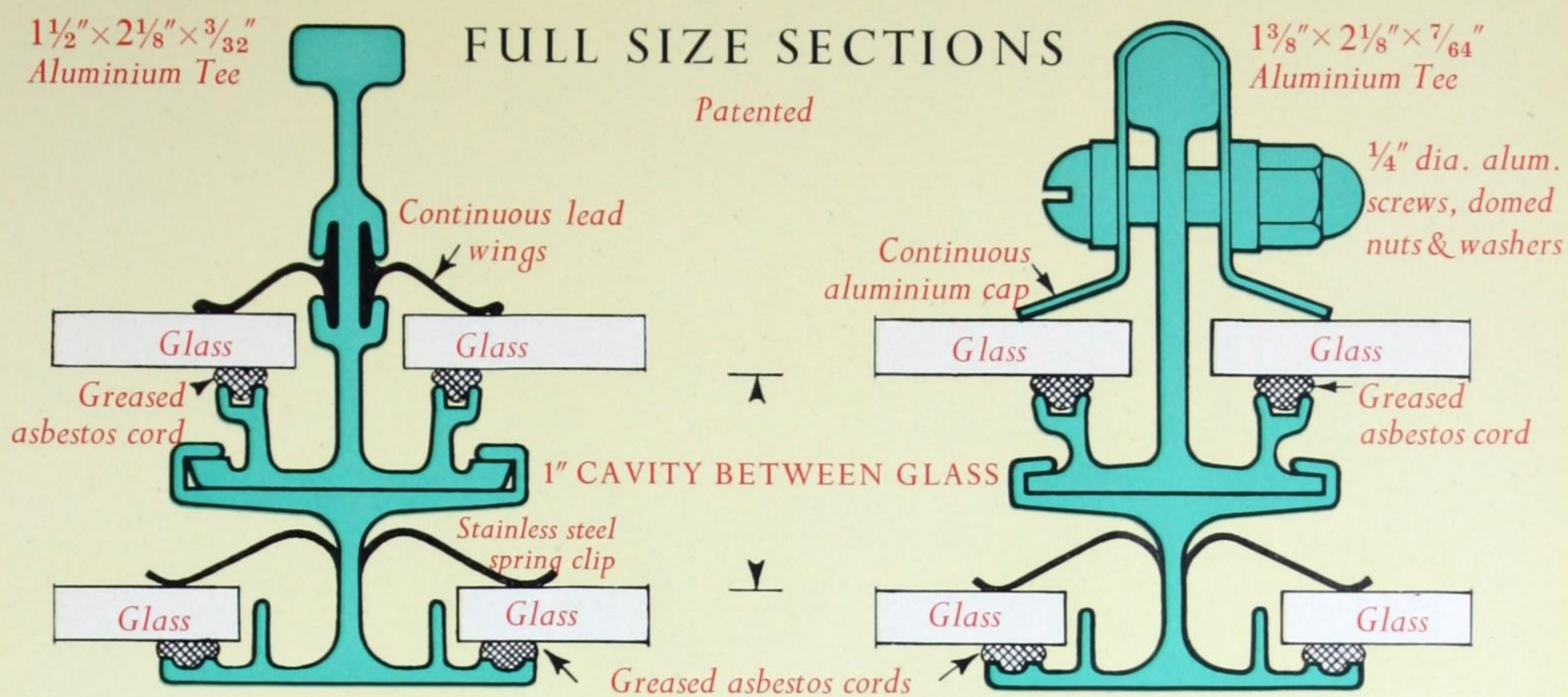
- 1 Heat losses through single patent glazing are halved by the use of HOPE'S Double Patent Glazing and the indoor temperature more efficiently controlled.
- 2 Fuel consumption and heating costs are lowered.
- 3 The inner glazing, being isolated from the outer air, is kept at a temperature nearer to that of the inside of the building, thus avoiding down draughts and condensation.
- 4 To prevent dust penetration, the edges of the glass are bedded.
- 5 Double Patent Glazing also provides considerable insulation against noise.

A considerable saving can be effected in the capital cost of heating equipment if our Double Patent Glazing is introduced at the design stage of a building.

We are at all times pleased to prepare schemes and drawings.

We illustrate both Lead-clothed Steel and Aluminium Double Patent Glazing: each has properties which make it more suitable than the other for certain conditions, and we usually select the type and size of double glazed bar most suited to the atmospheric and physical properties of each installation, after consultation with the customer.

HOPE'S Aluminium Double Glazing Bars



DAL Bar for spans up to 7' 6"

DBL Bar for spans up to 9' 0"
(1 1/2" x 2 1/2" Aluminium Tee)

DCL Bar for spans up to 10' 6"
(1 1/2" x 3" Aluminium Tee)

DA Bar for spans up to 7' 6"

DB Bar for spans up to 9' 0"
(1 3/8" x 2 5/8" Aluminium Tee)

For purposes of calculation, weight per foot super of the above bars including 2 sheets of 1/4" glass can be taken as 8 lb

SPECIFICATIONS

Lead-clothed Steel Double Patent Glazing to consist of HOPE'S Lead-clothed Glazing Bars, constructed of a rolled steel bulb tee bar, dipped in calcium plumbate paint stoved on and totally enclosed in a jointless lead sheath hermetically sealed. The lead sheath to be formed with a ridge on the bulb, two independent wings for dressing on to the outer glass and to have condensation channels below the inner glass. The glazing bar to be of a suitable strength for the span involved.

The inner glass to be bedded on greased asbestos cords fitted into cord channels in the lead sheath, and separated from the outer glass by an aluminium channel set in a non-setting seal.

Glass to be secured at bottom of the bar by galvanized iron or non-ferrous metal shoe.

Bars to be spaced at 24 1/2" centres, fixed and glazed by HOPE'S.

Aluminium with Lead Wings Double Patent Glazing to consist of HOPE'S Aluminium Glazing Bars in alloy HE9WP, bar to have incorporated in it continuous extruded lead wings for dressing on to the outer glass. Glazing bar to be of suitable strength for the span involved. Both inner and outer glass to be bedded on greased asbestos cords fitted into channels in bar. Outer glass is secured at bottom of bar by an extruded aluminium glass stop fixed by means of an aluminium bolt and nut. Inner glass is retained at bottom of bar by the purlin, where it is bedded in a non-setting seal: and along the bar by stainless steel spring clips.

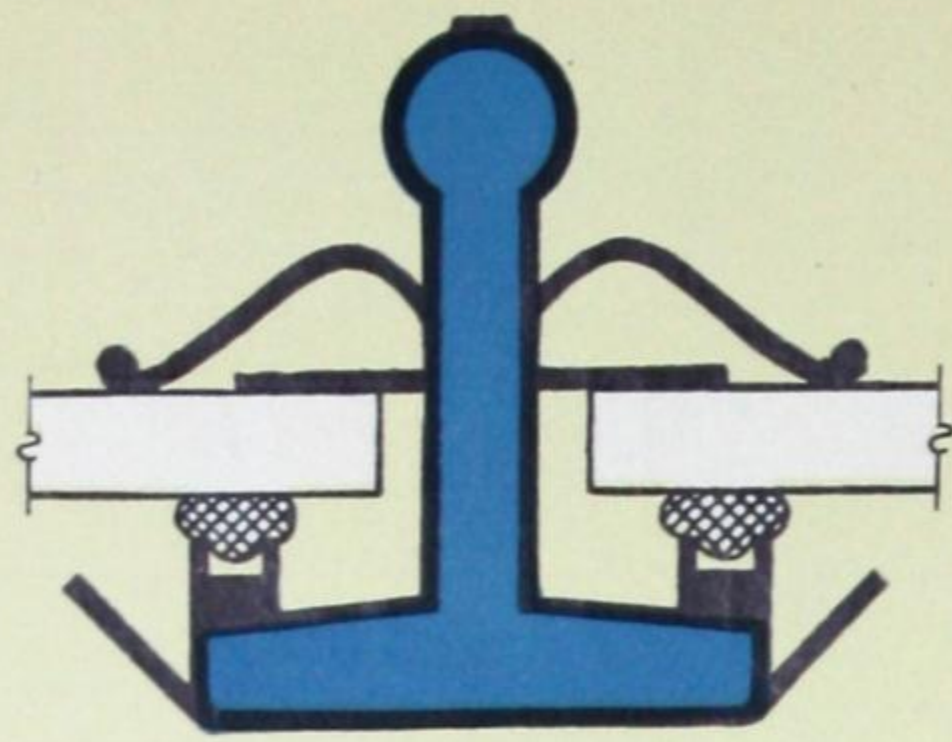
Bars to be spaced at 24 1/2" centres, fixed and glazed by HOPE'S.

Aluminium with Aluminium Capping Double Patent Glazing to consist of HOPE'S Extruded Aluminium Glazing Bars in alloy HE9WP, fitted with a continuous aluminium capping of 21 gauge commercially pure aluminium. The capping to be secured to the bar by means of aluminium screws and domed nuts. Glazing bar to be of suitable strength for the span involved. Both inner and outer glass to be bedded on greased asbestos cords fitted into channels in bar. Outer glass is secured at bottom of bar by an extruded aluminium glass stop fixed by means of an aluminium bolt and nut. Inner glass is retained at bottom of bar by the purlin, where it is bedded in a non-setting seal: and along the bar by stainless steel spring clips.

Bars to be spaced at 24 3/8" centres, fixed and glazed by HOPE'S.

MINIMUM CLEARANCES

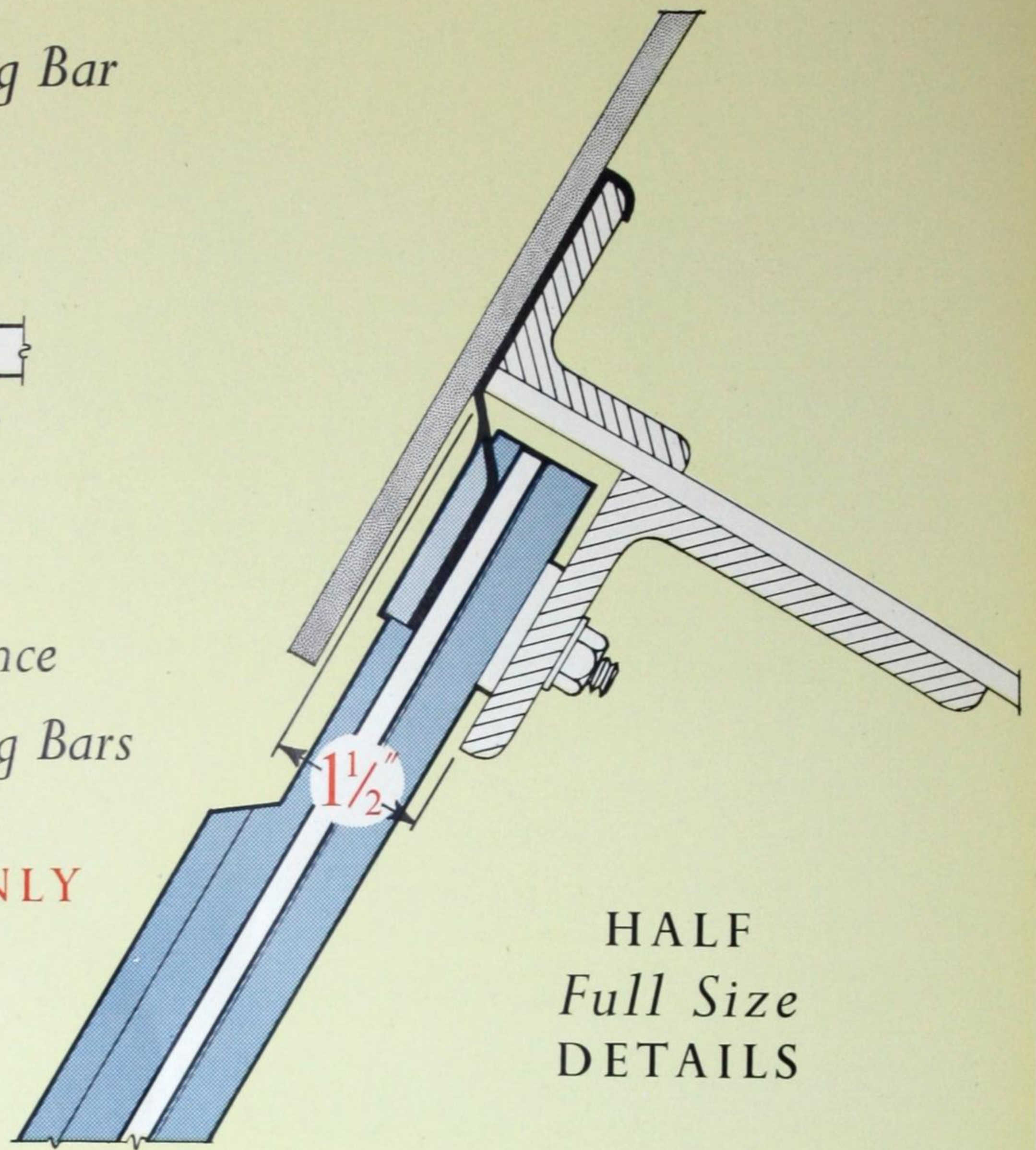
HOPE'S B1 Glazing Bar



Full Size Section

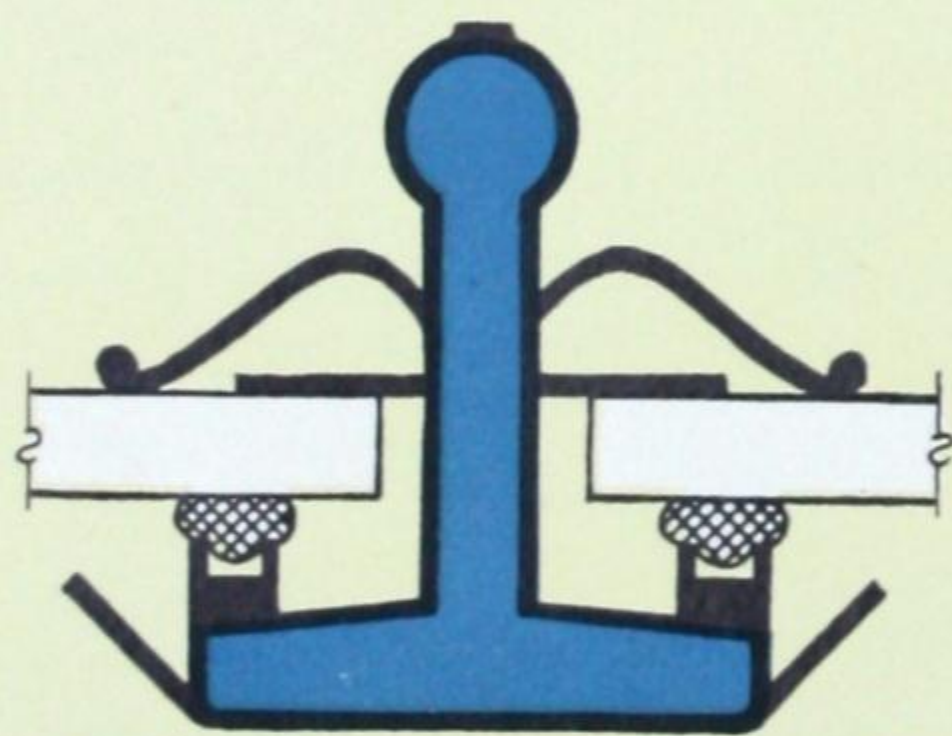
*1½" minimum clearance
for B1 and O3 Glazing Bars*

TOP PURLINS ONLY



*HALF
Full Size
DETAILS*

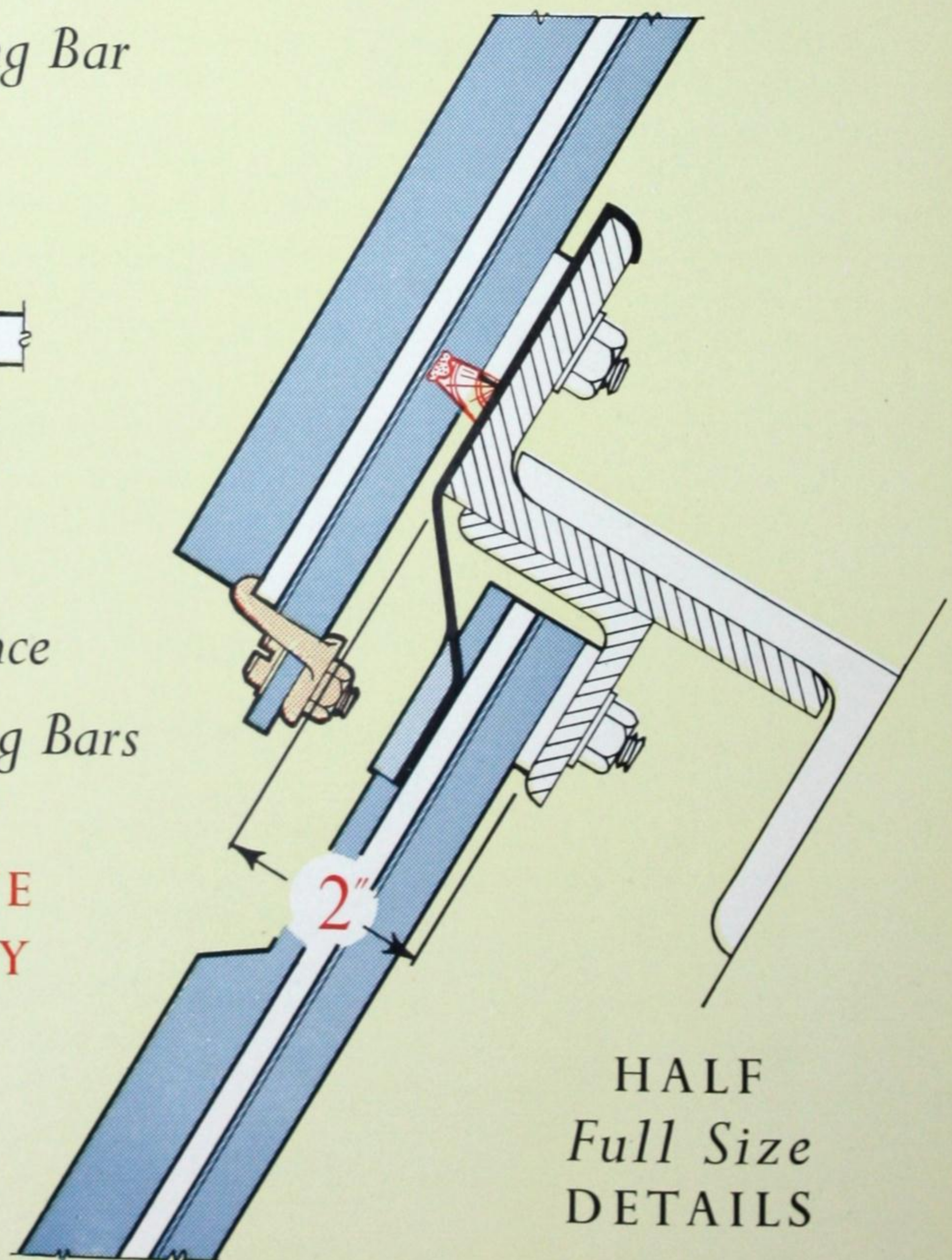
HOPE'S B1 Glazing Bar



Full Size Section

*2" minimum clearance
for B1 and O3 Glazing Bars*

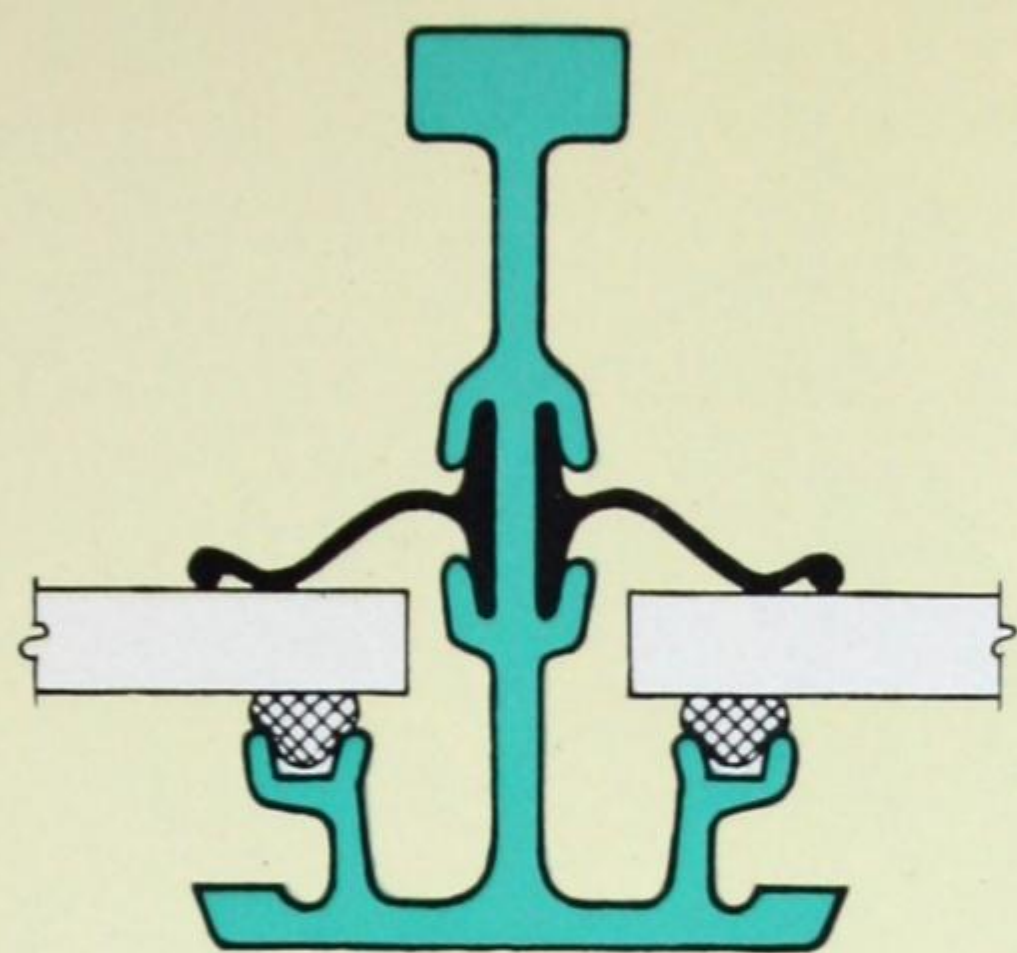
**INTERMEDIATE
PURLINS ONLY**



*HALF
Full Size
DETAILS*

necessary for fixing glazing to steelwork

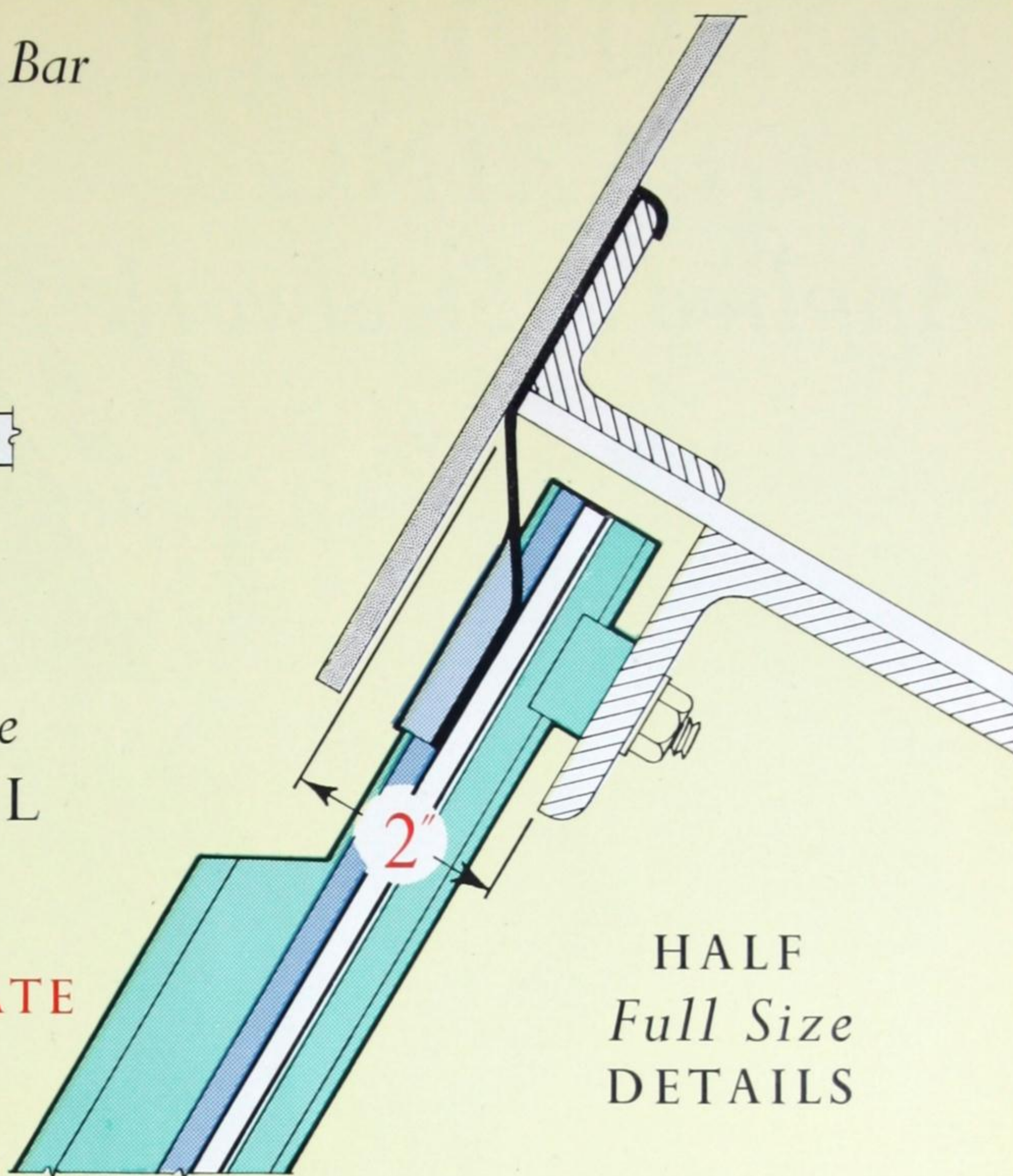
HOPE'S AL Glazing Bar



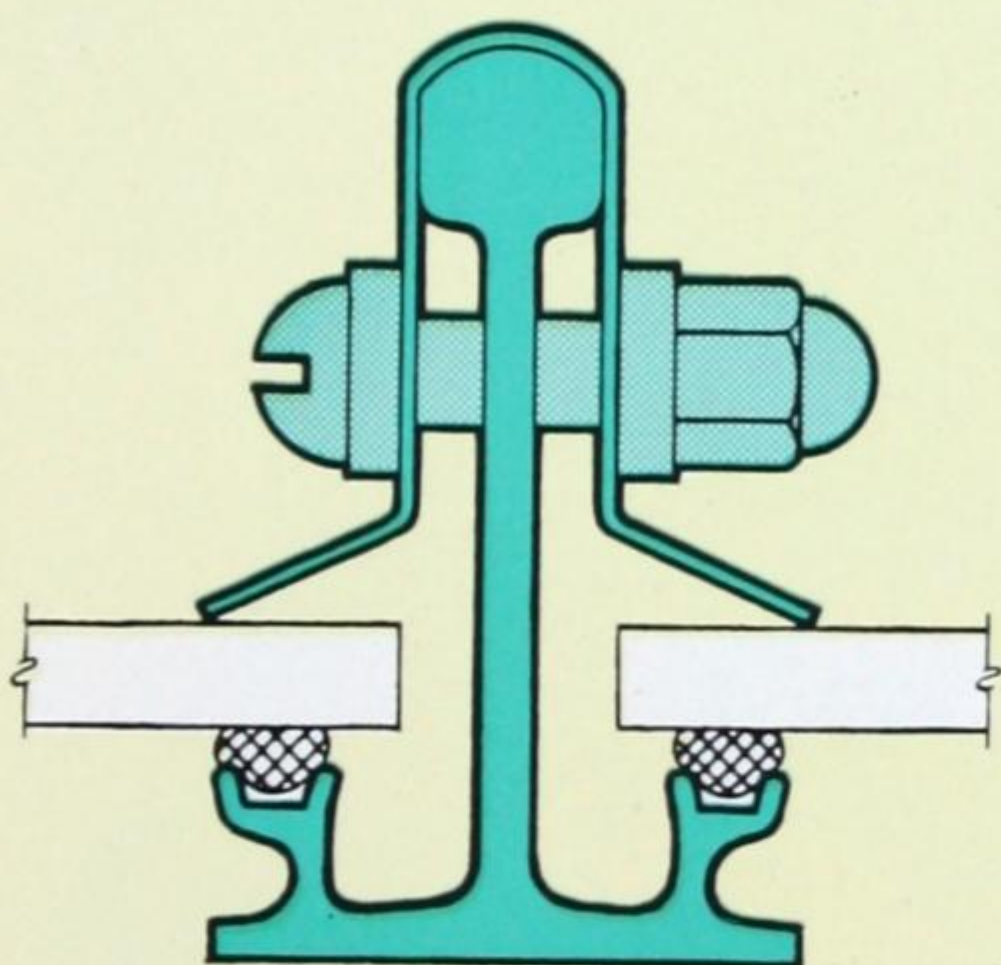
Full Size Section

2" minimum clearance
for DL:AL:BL:CL
Glazing Bars

TOP & INTERMEDIATE
PURLINS



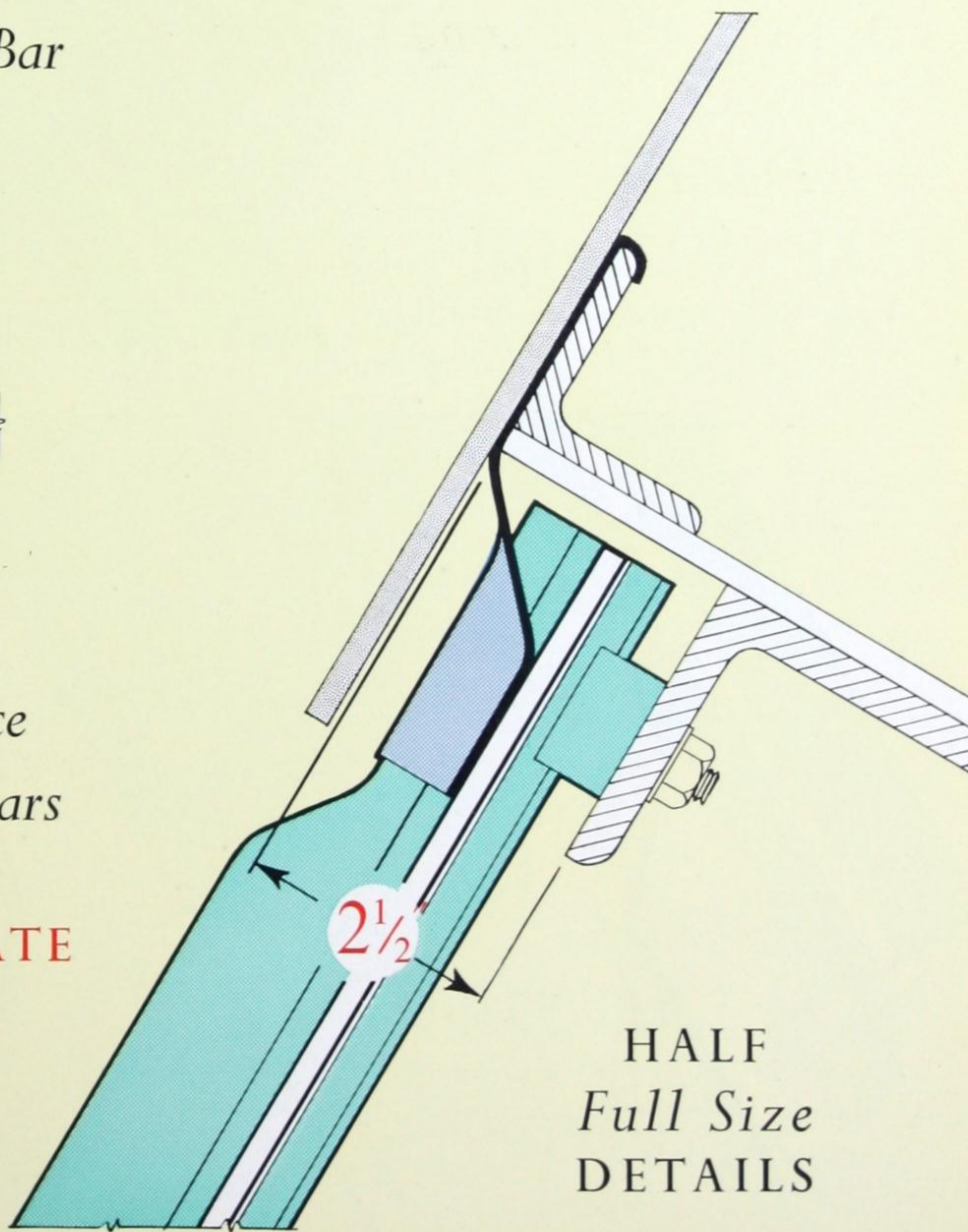
HOPE'S A Glazing Bar



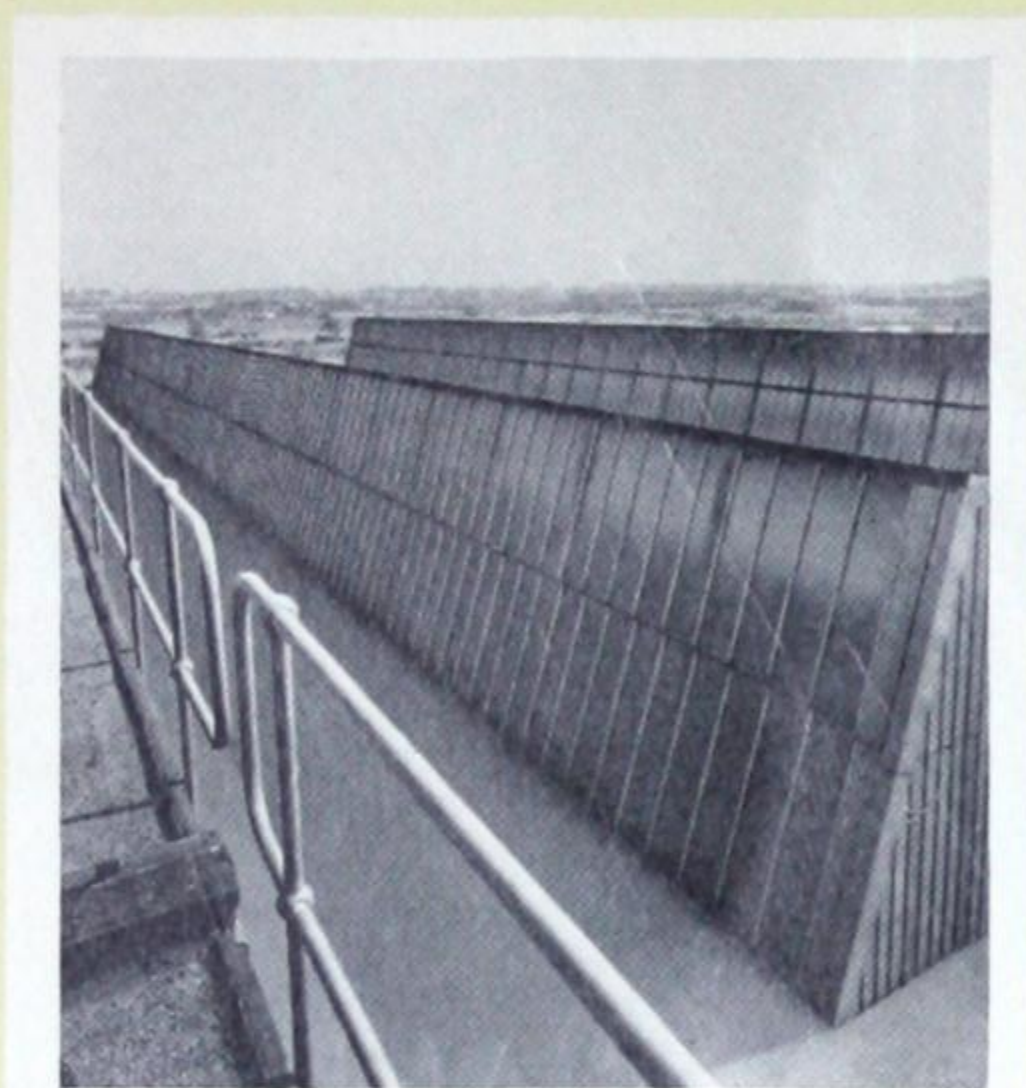
Full Size Section

2½" minimum clearance
for A and B Glazing Bars

TOP & INTERMEDIATE
PURLINS



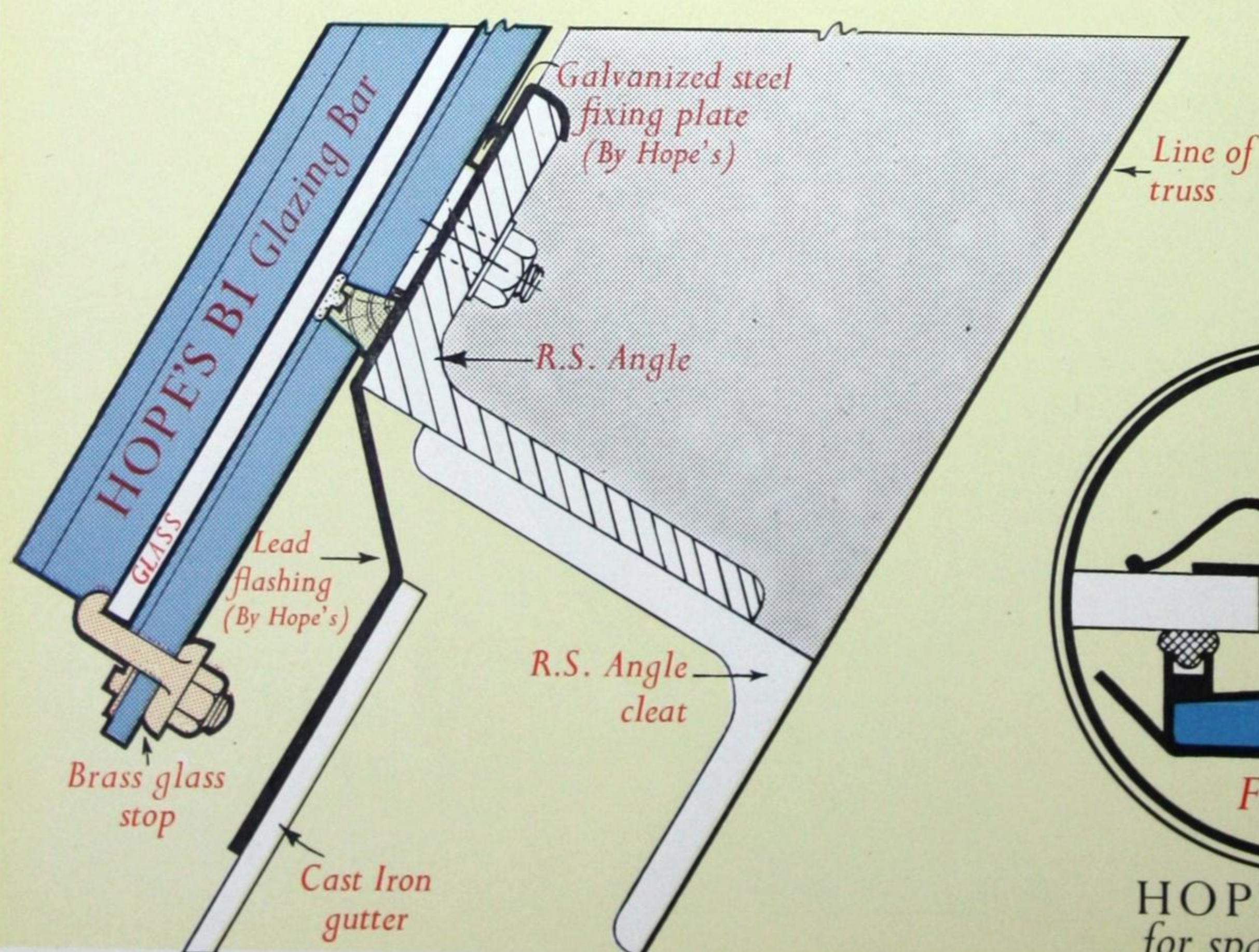
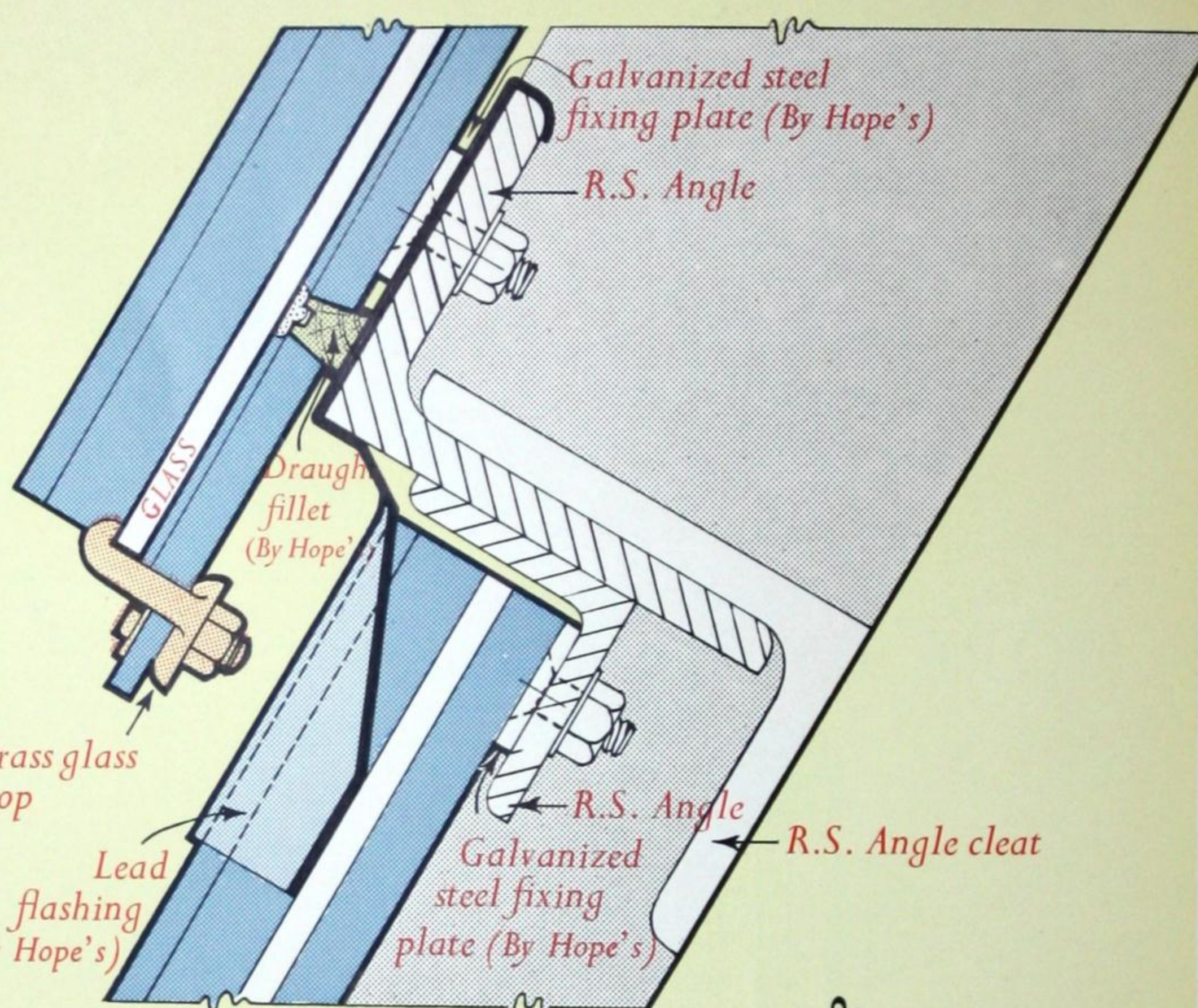
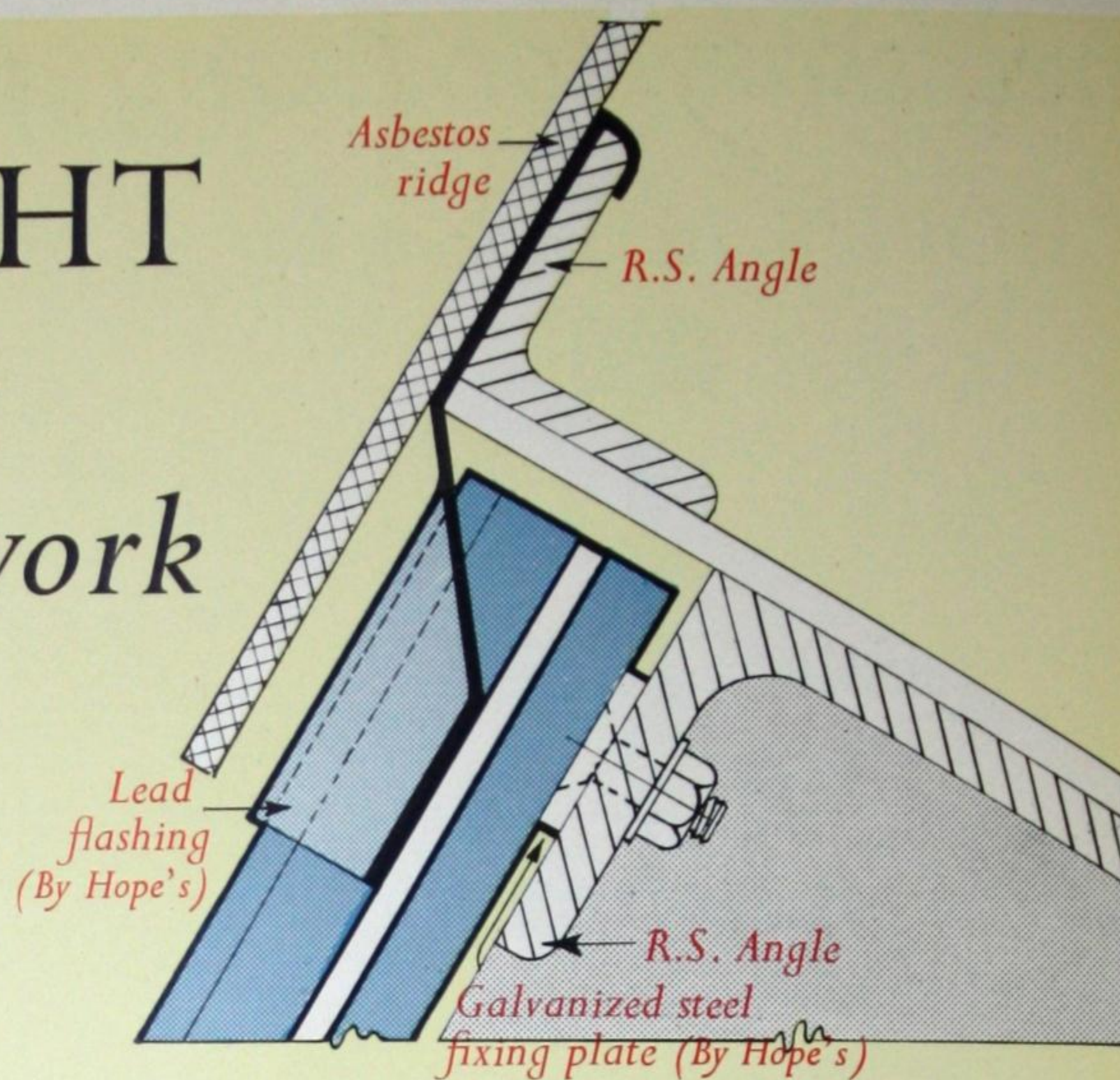
NORTH LIGHT GLAZING *Applied to Steelwork*



BIRLEC LTD, Aldridge
Peter Hing & Jones, Chartered Architects

Details HALF FULL SIZE

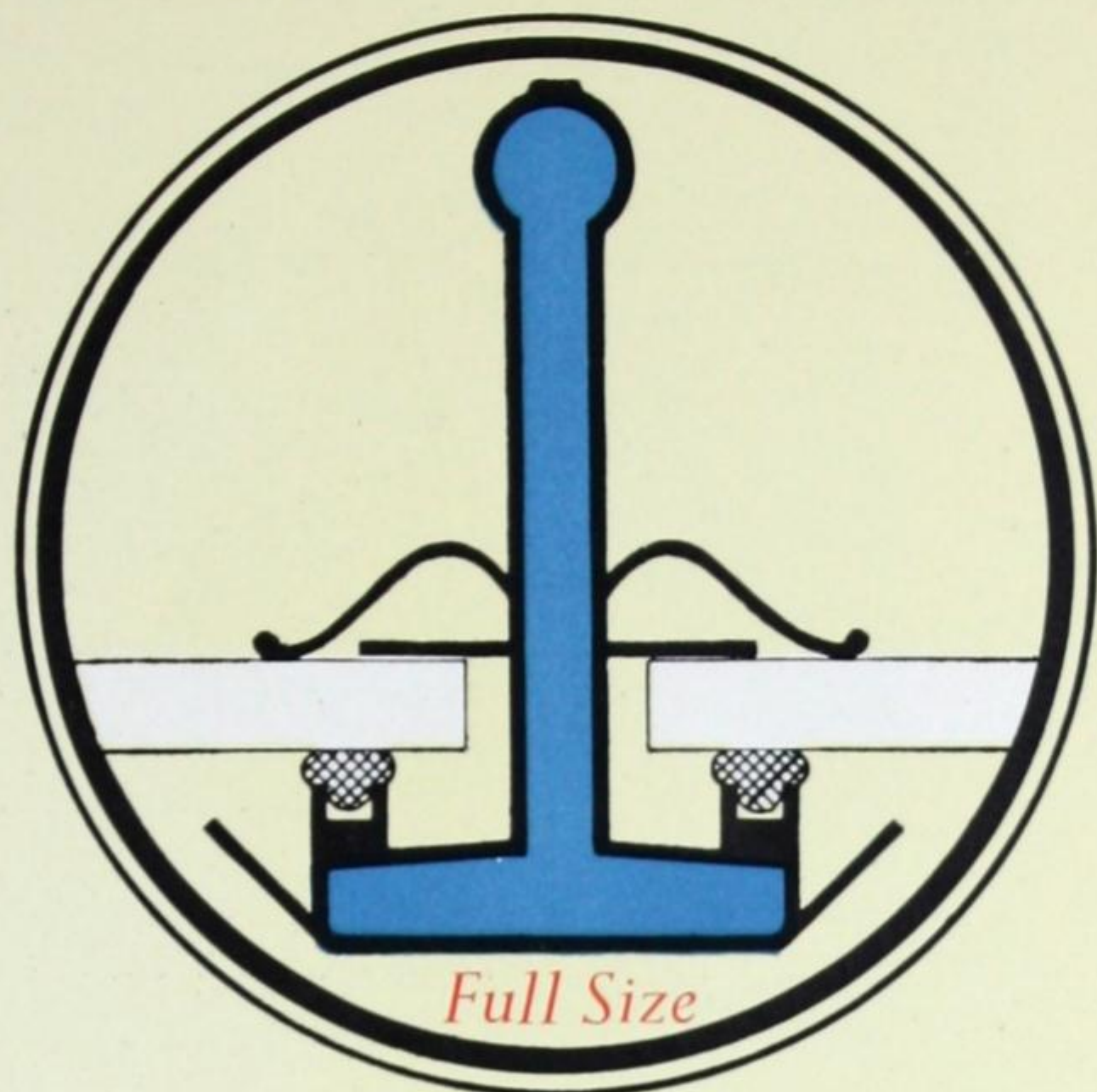
SEE PAGE 7 FOR STEELWORK DRILLING
POSITIONS



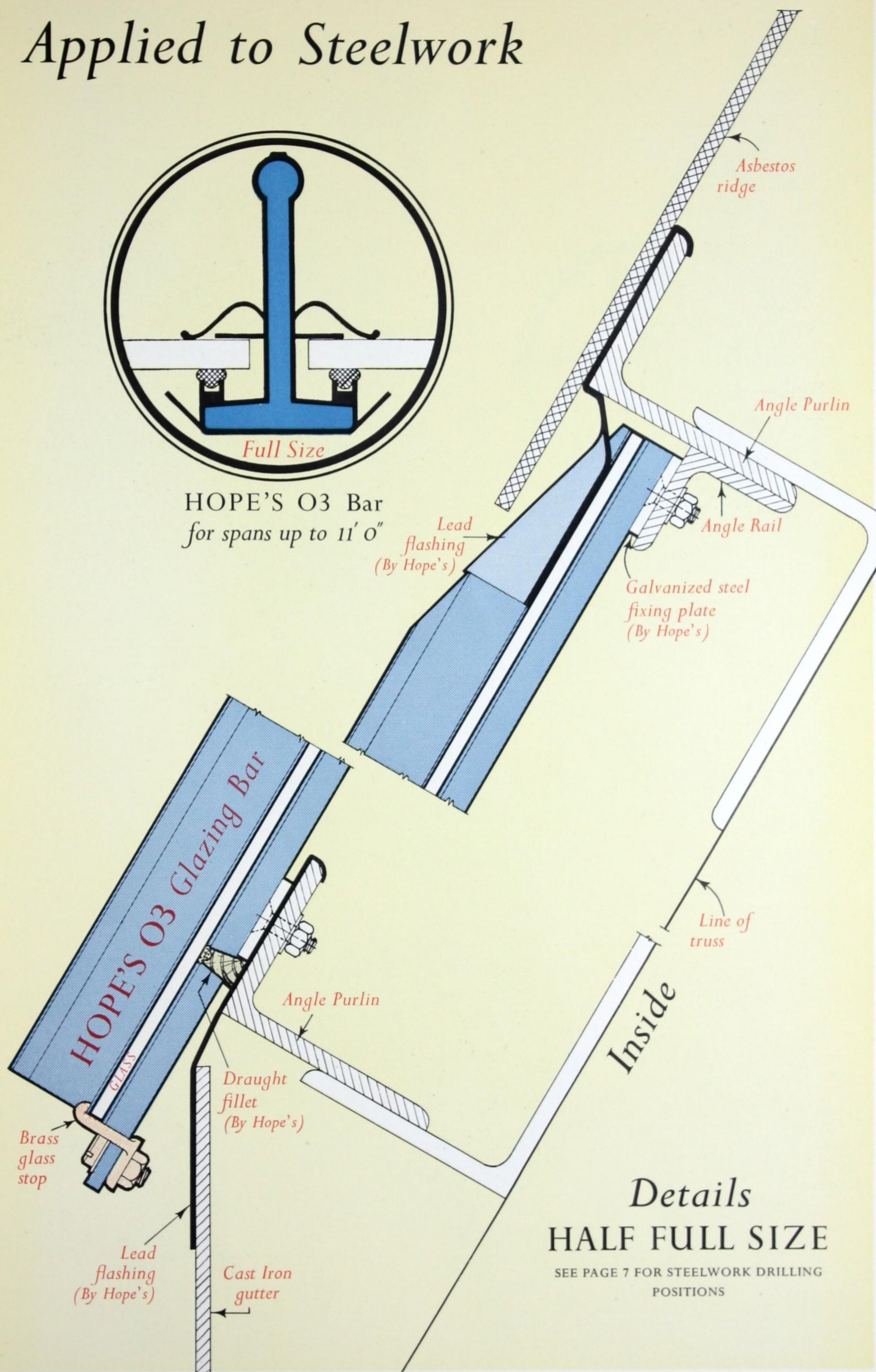
Full Size
HOPE'S B1 Bar
for spans up to 7' 6"

NORTH LIGHT GLAZING

Applied to Steelwork



HOPE'S O3 Bar
for spans up to 11' 0"



Details
HALF FULL SIZE

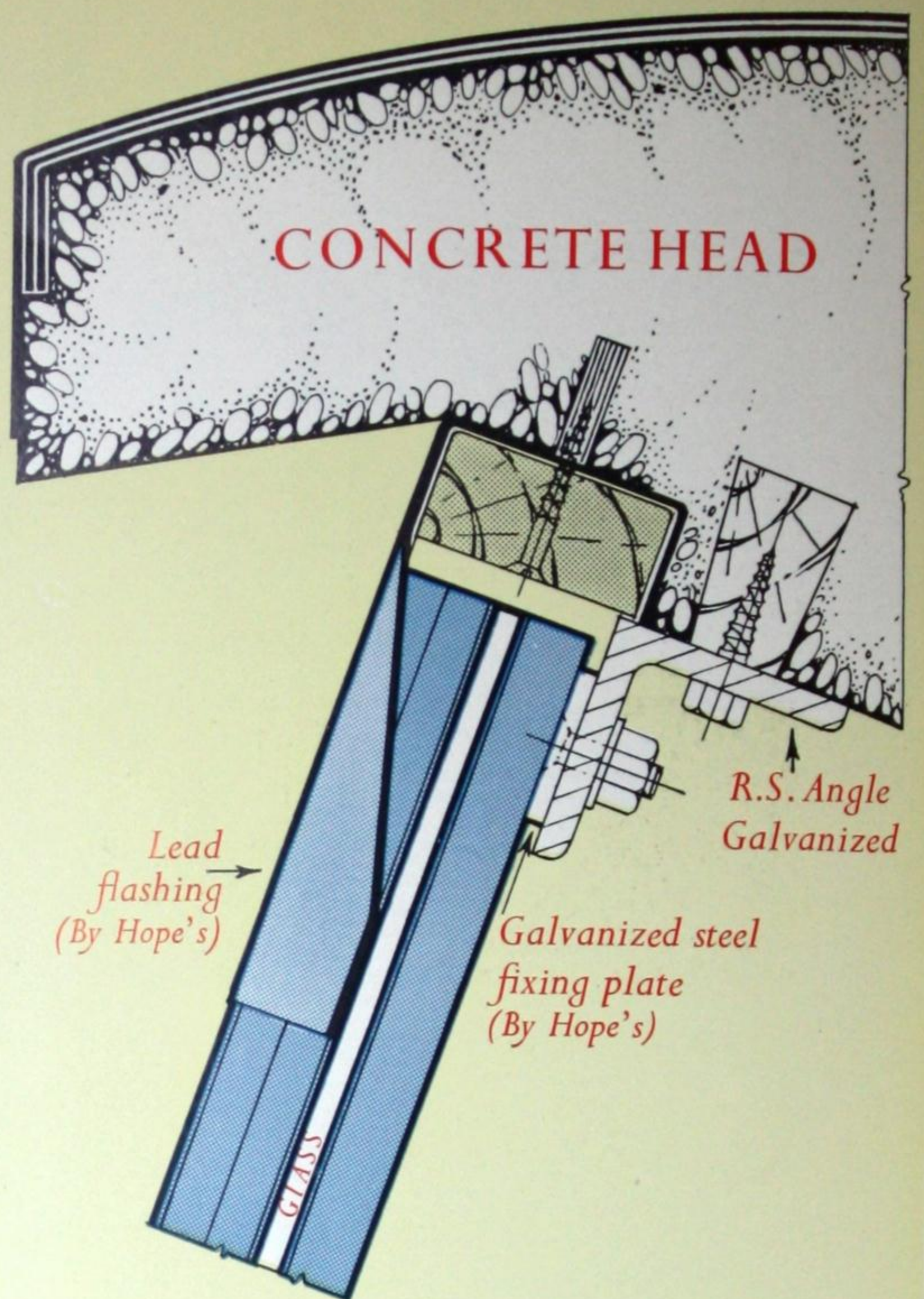
SEE PAGE 7 FOR STEELWORK DRILLING
POSITIONS

NORTH LIGHT Concrete Construction



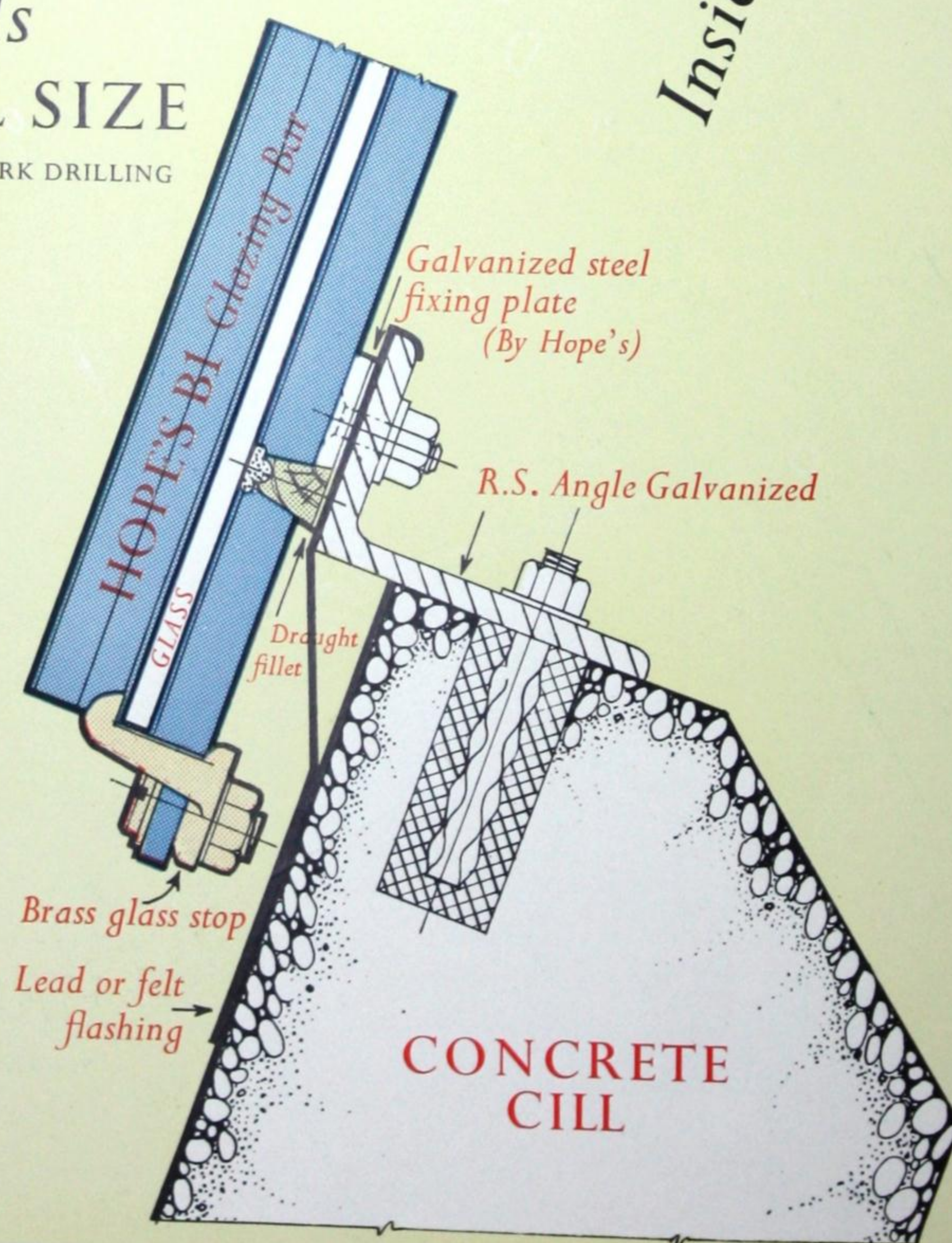
Full Size

HOPE'S B1 Bar
for spans up to 7' 6"



Details HALF FULL SIZE

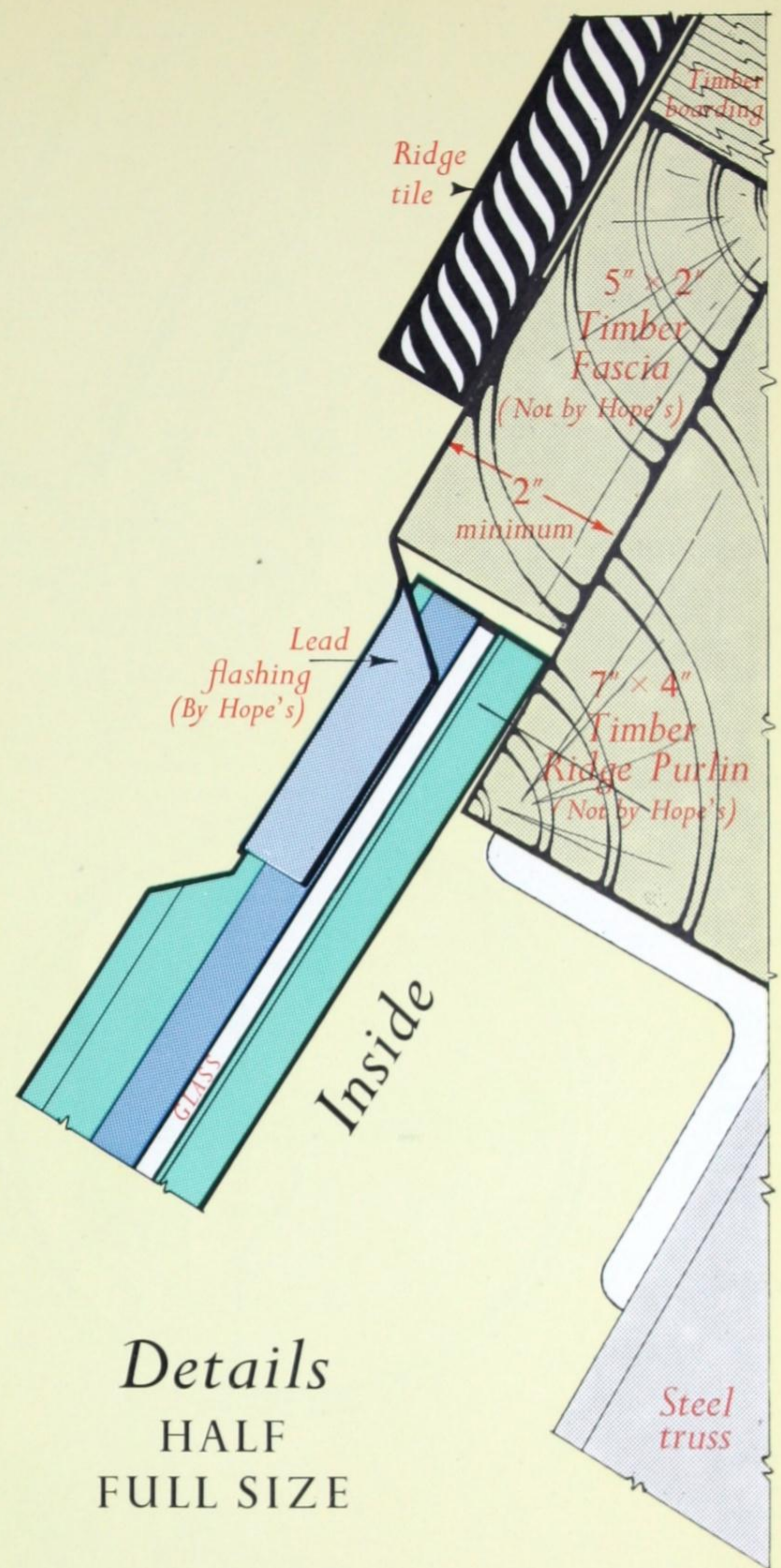
SEE PAGE 7 FOR STEELWORK DRILLING
POSITIONS



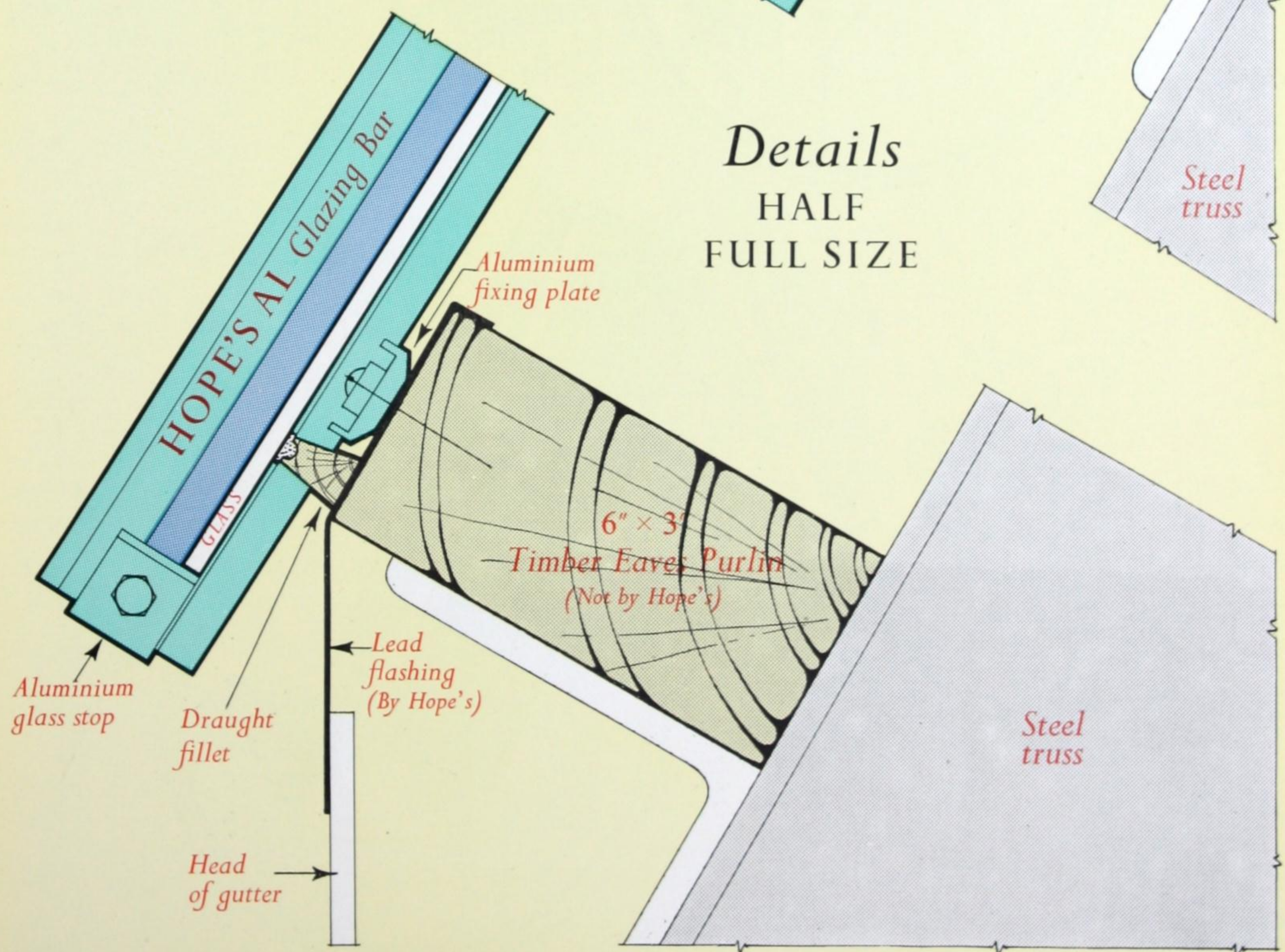
NORTH LIGHT Wood Construction



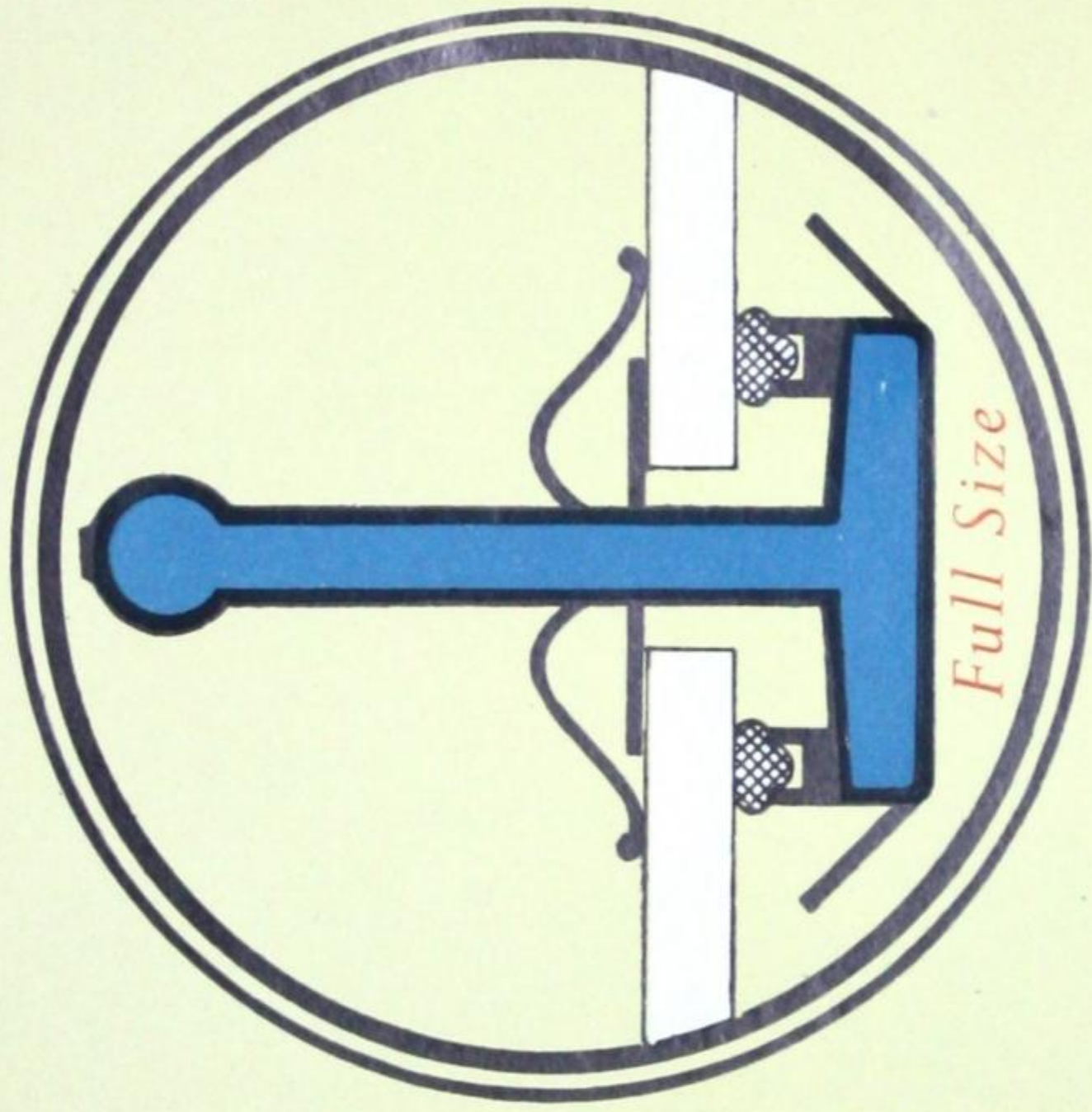
The Contactor Switch Gear Ltd, Leominster
John P. Osborne & Son, Architect



Details
HALF
FULL SIZE



SPAN ROOF PATENT GLAZING Steel Construction



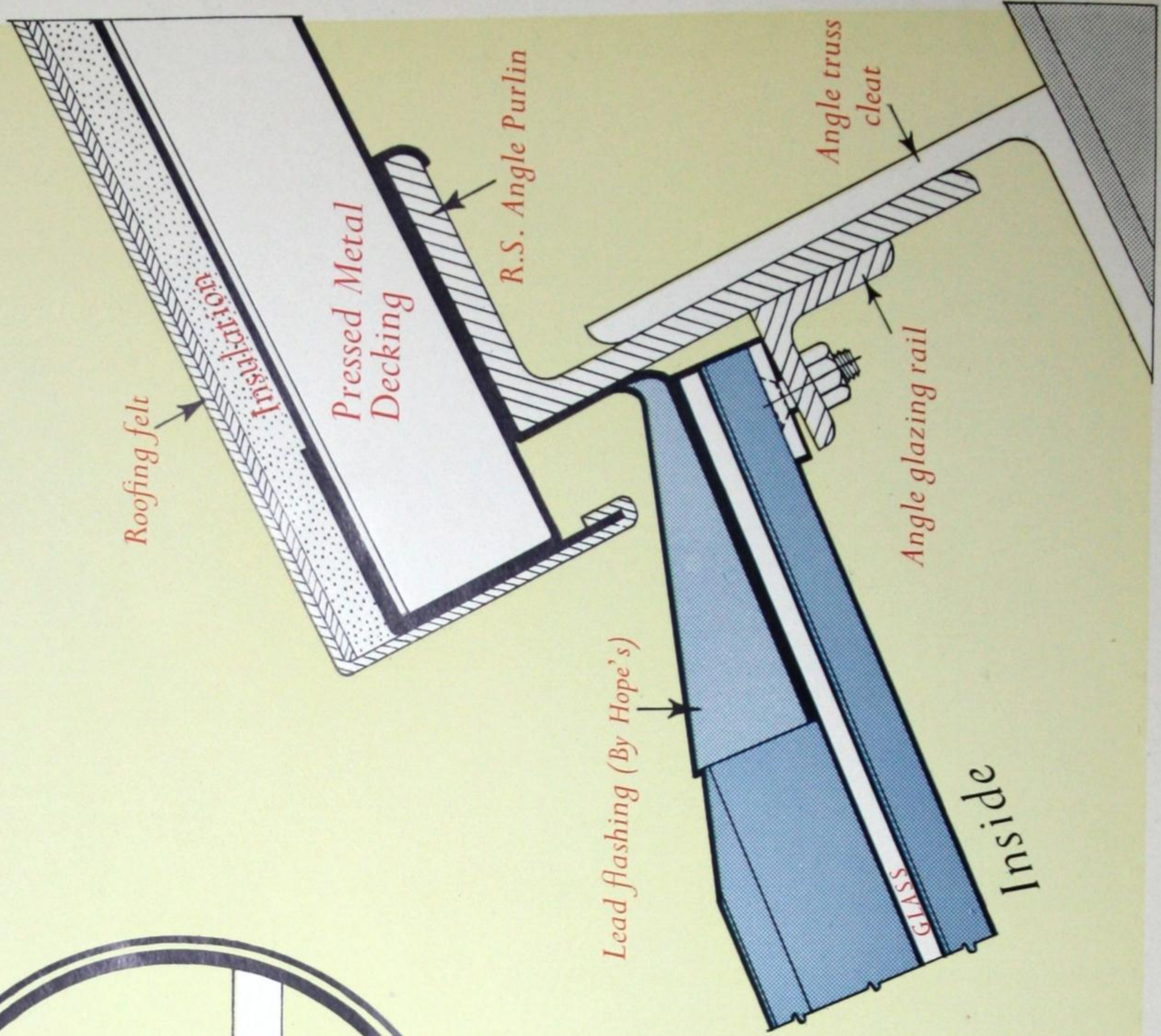
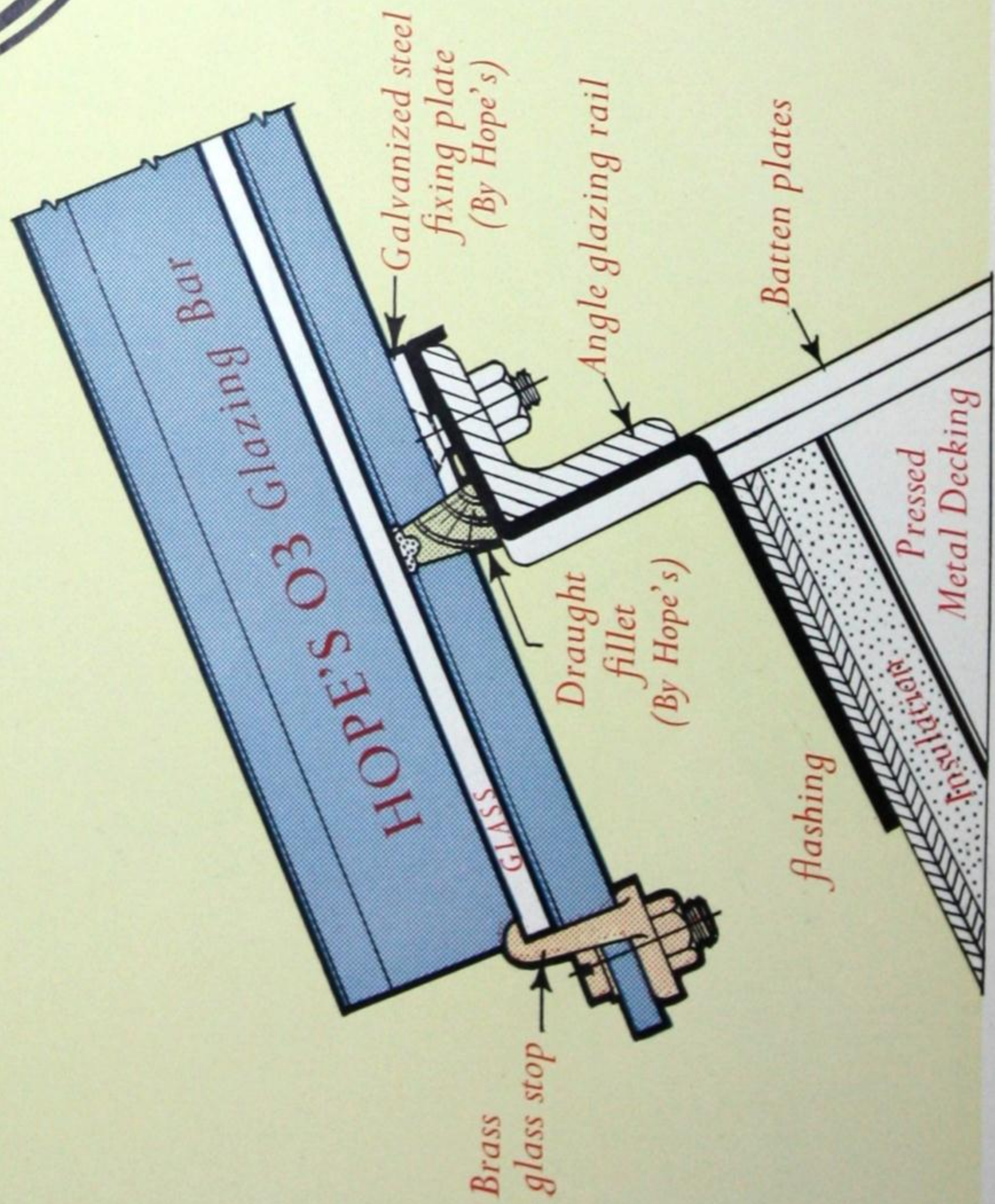
HOPE'S O3 Bar
for spans up to 11' 0"

Details

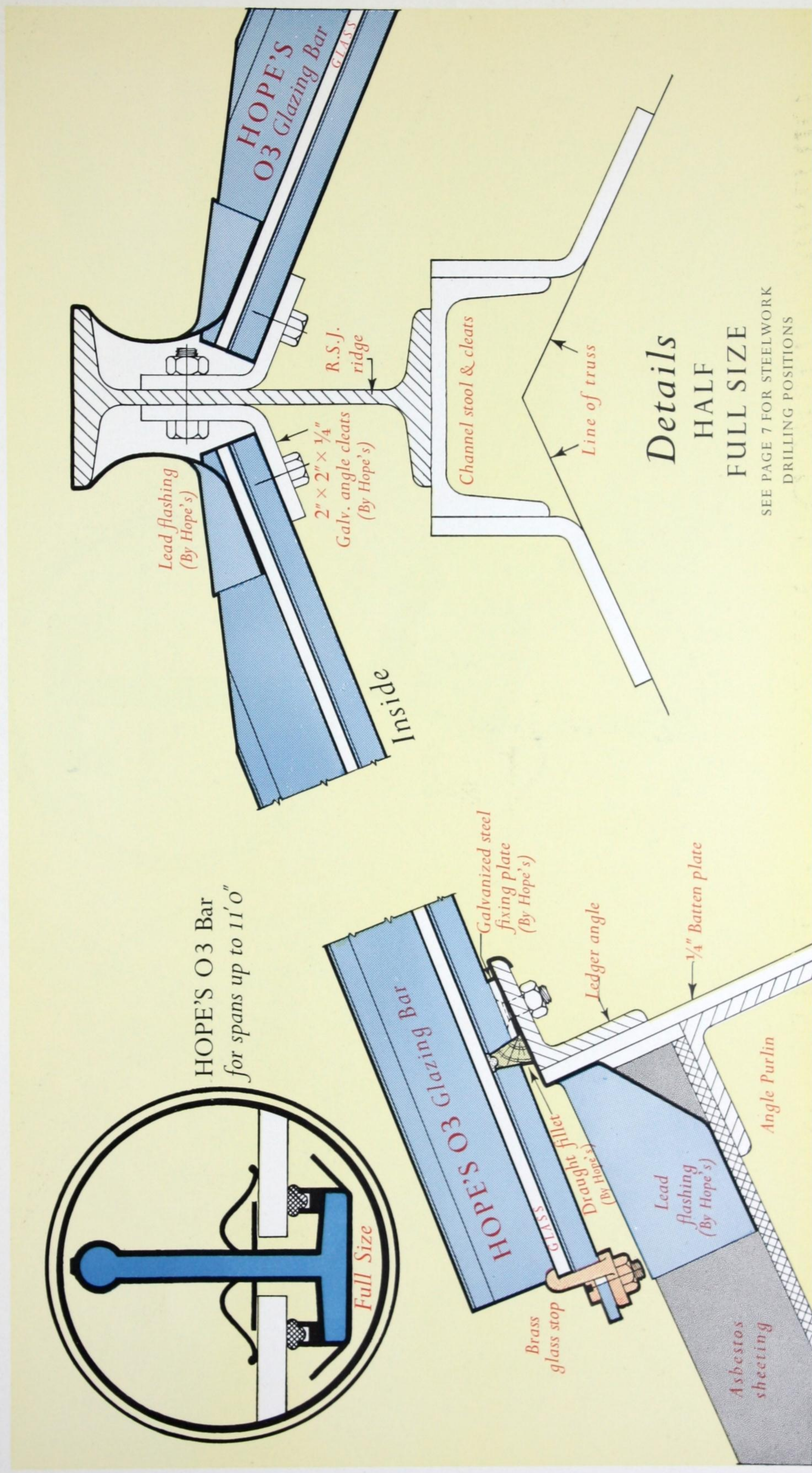
HALF

FULL SIZE

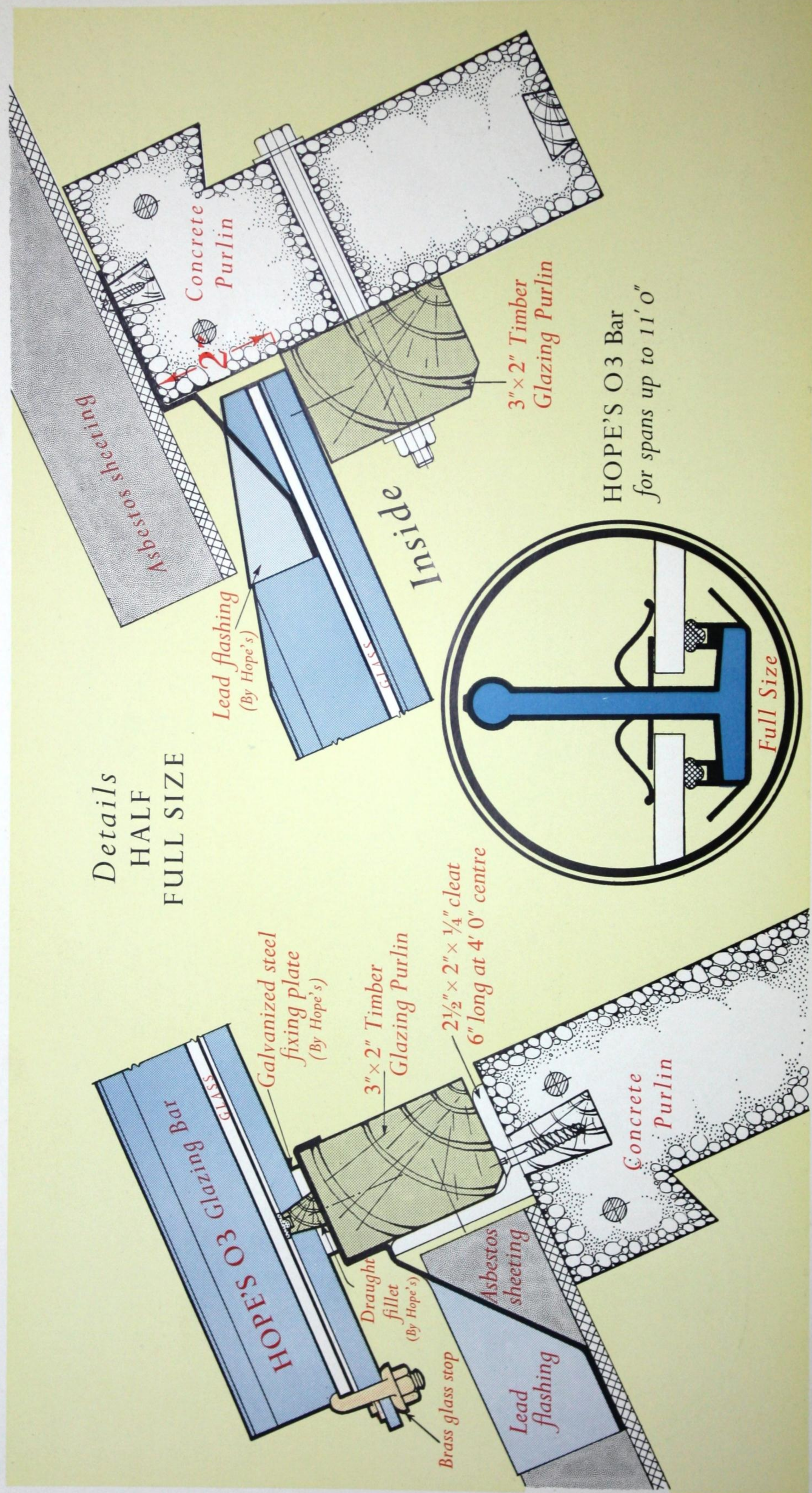
SEE PAGE 7 FOR STEELWORK
DRILLING POSITIONS



SPAN ROOF PATENT GLAZING Steel Construction



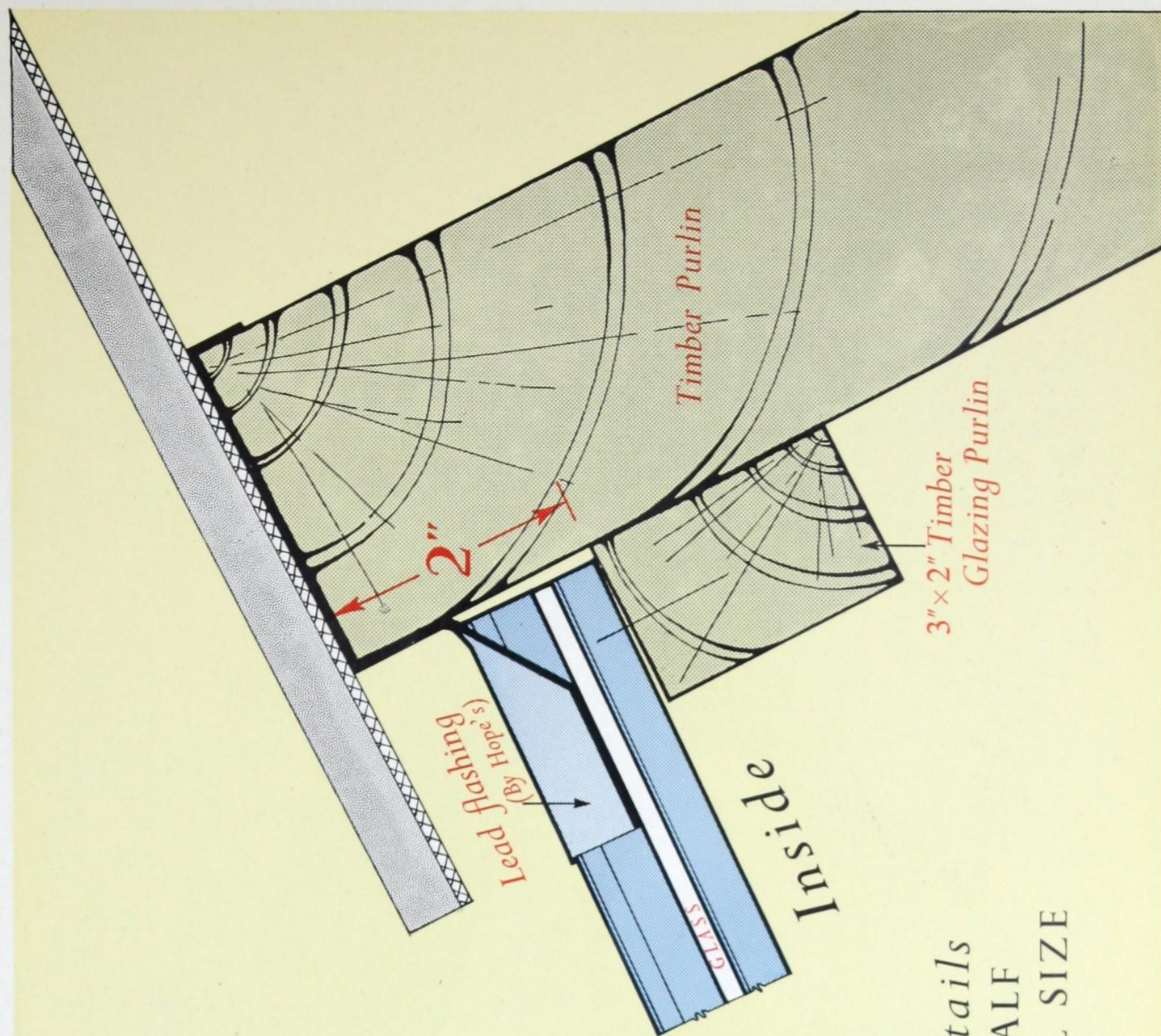
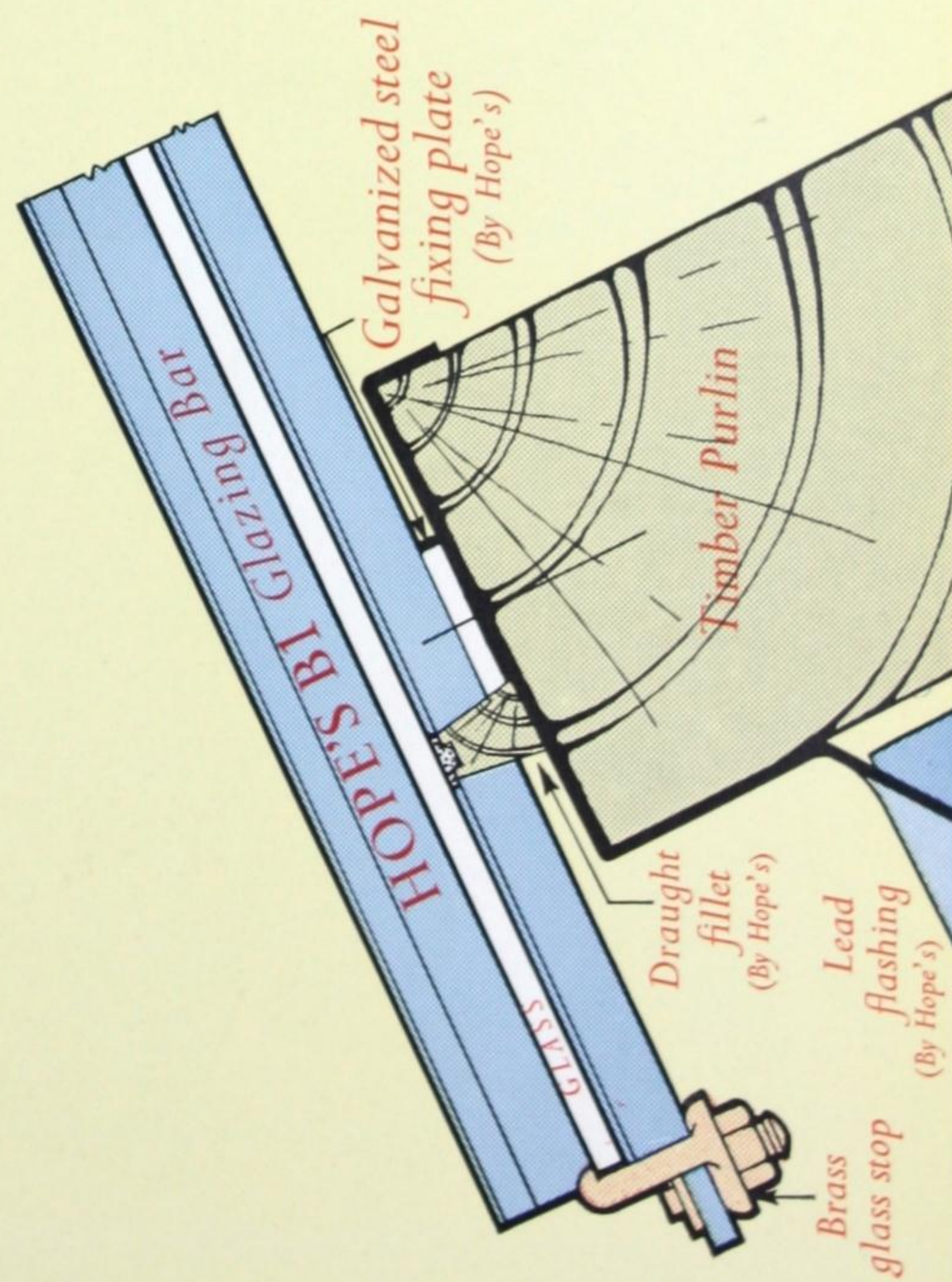
SPAN ROOF PATENT GLAZING Concrete Construction



SPAN ROOF PATENT GLAZING Wood Construction



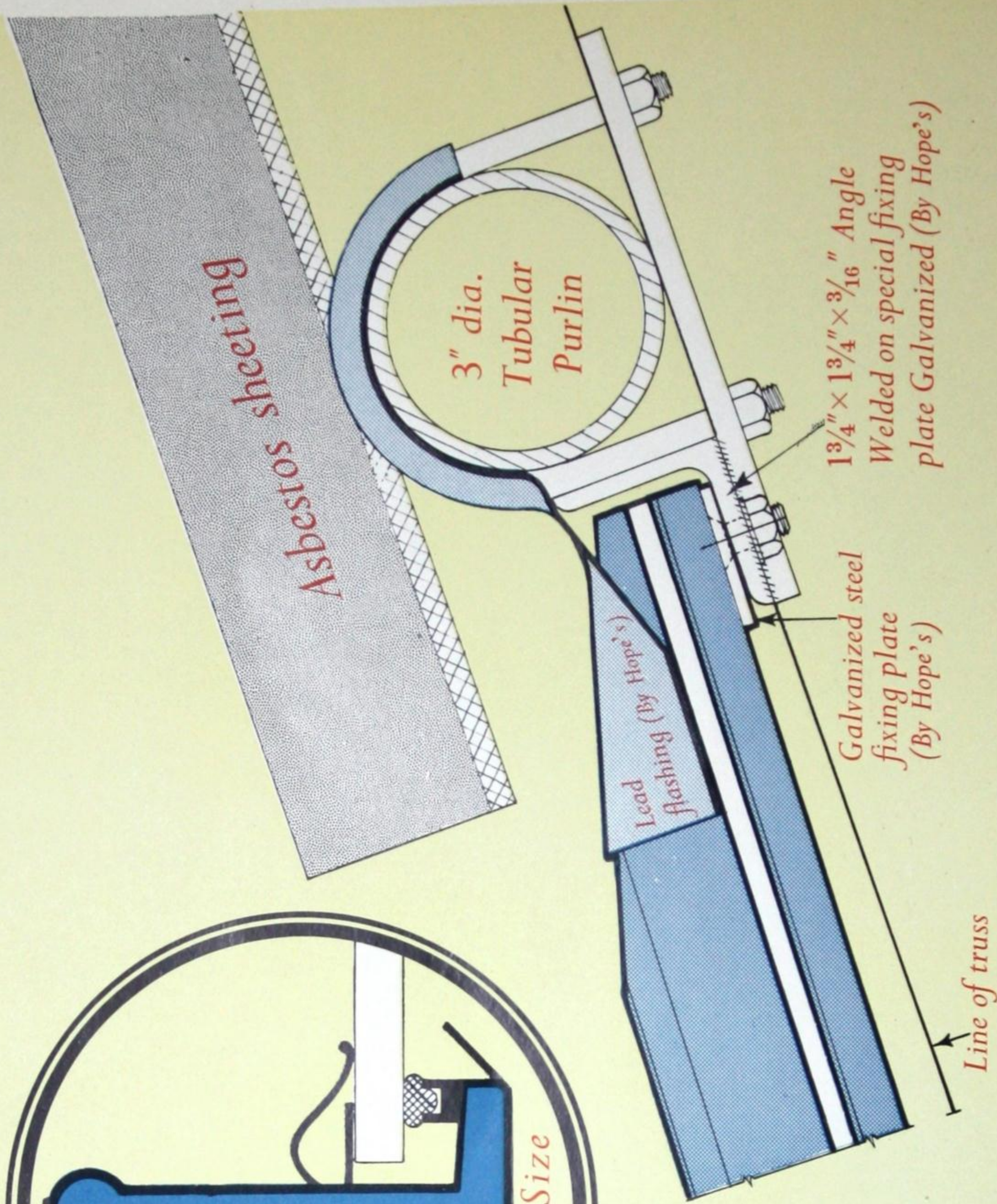
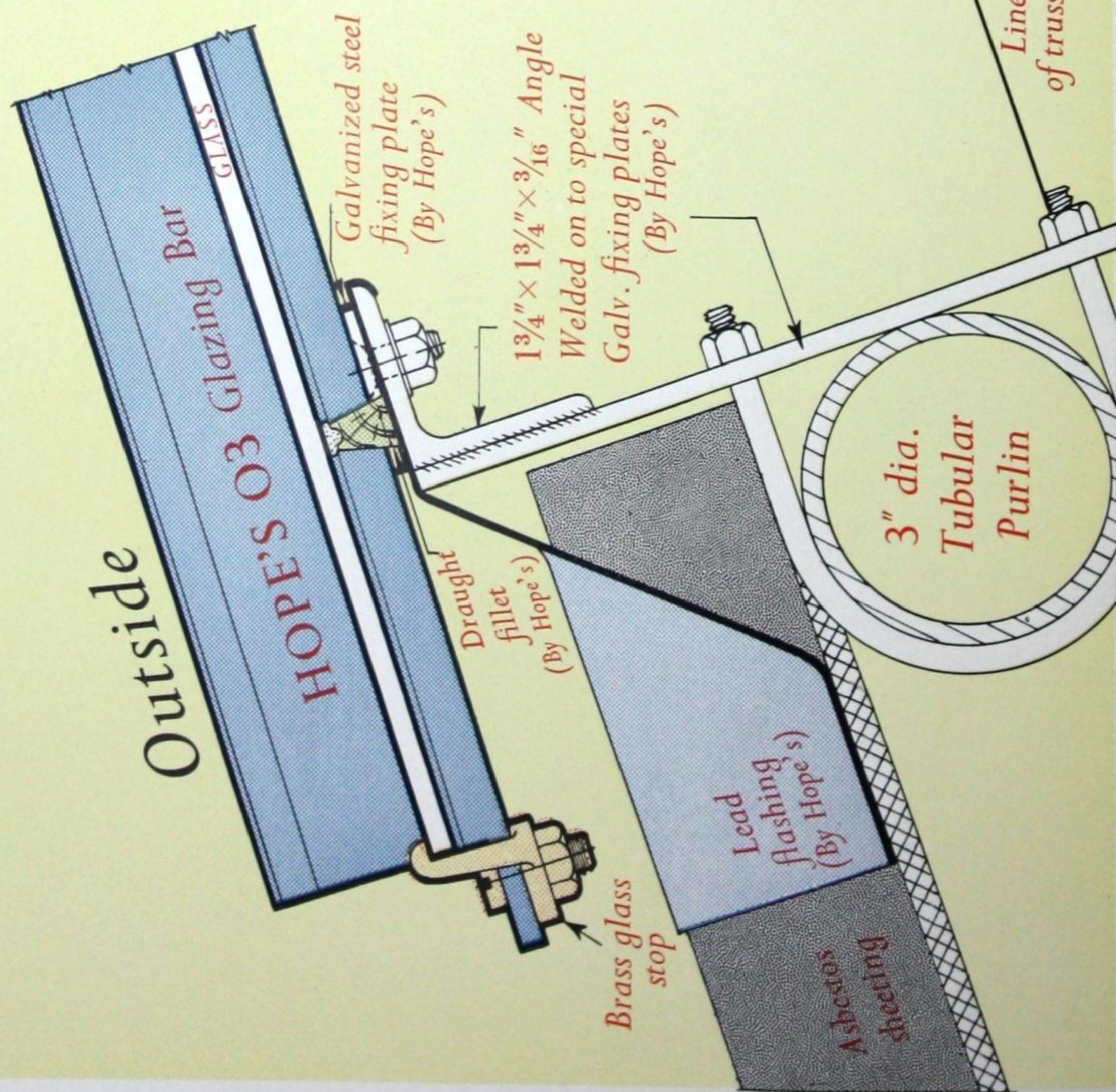
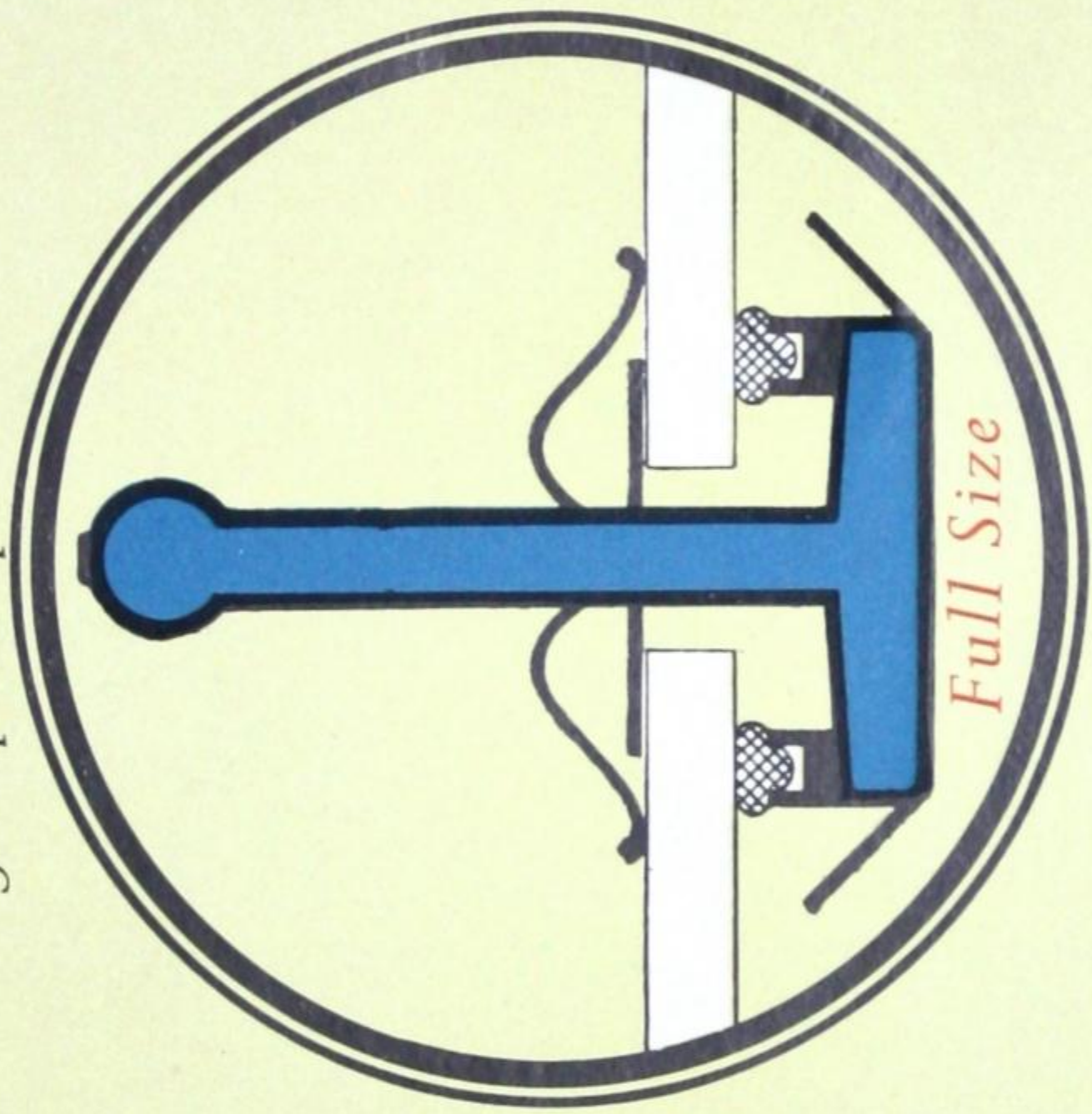
HOPE'S B1 Bar
for spans up to 7' 6"



Details
HALF
FULL SIZE

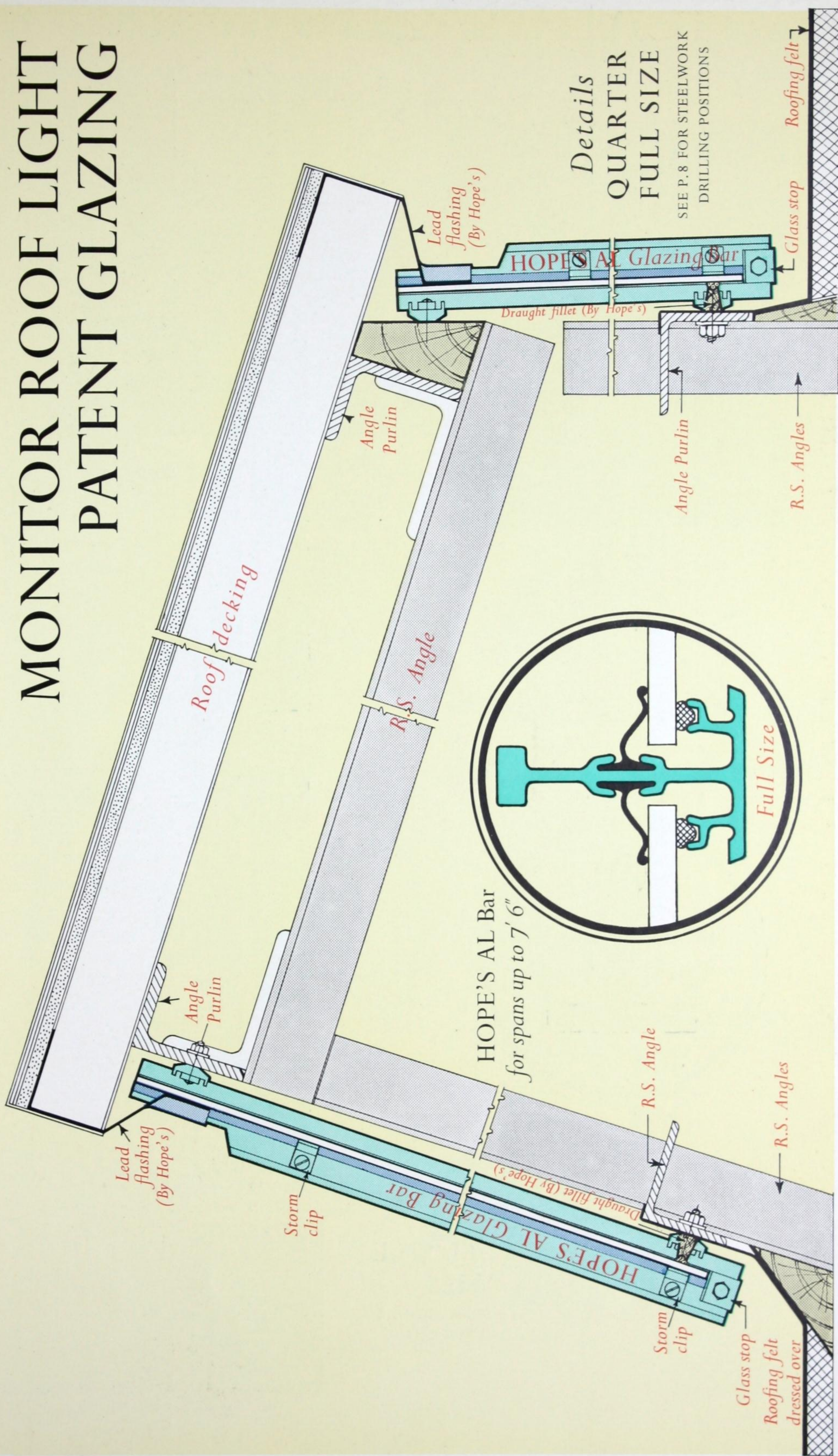
SPAN ROOF PATENT GLAZING Tubular Steel Construction

HOPE'S O3 Bar
for spans up to 11' 0"

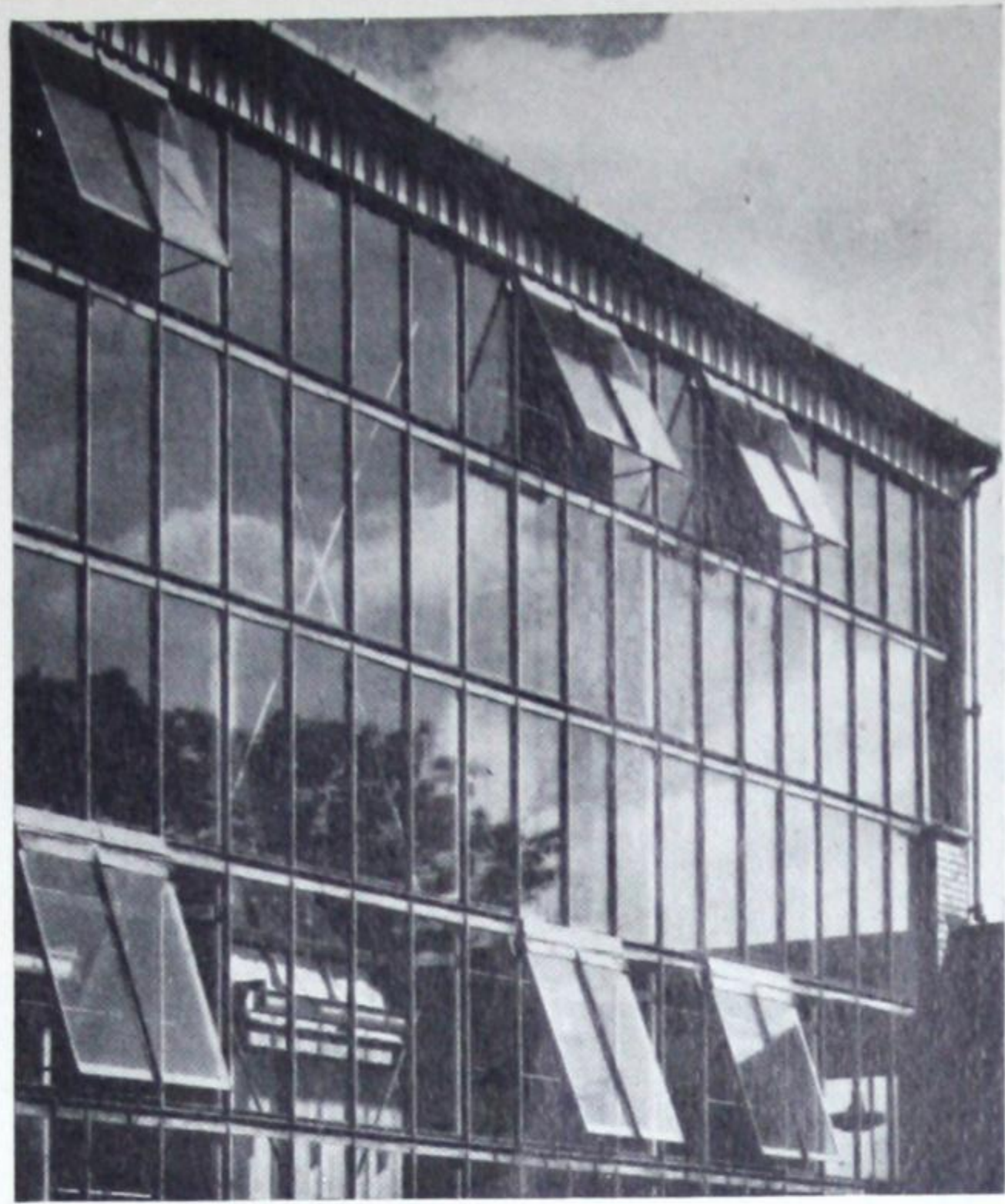


Details
HALF
FULL SIZE

MONITOR ROOF LIGHT PATENT GLAZING

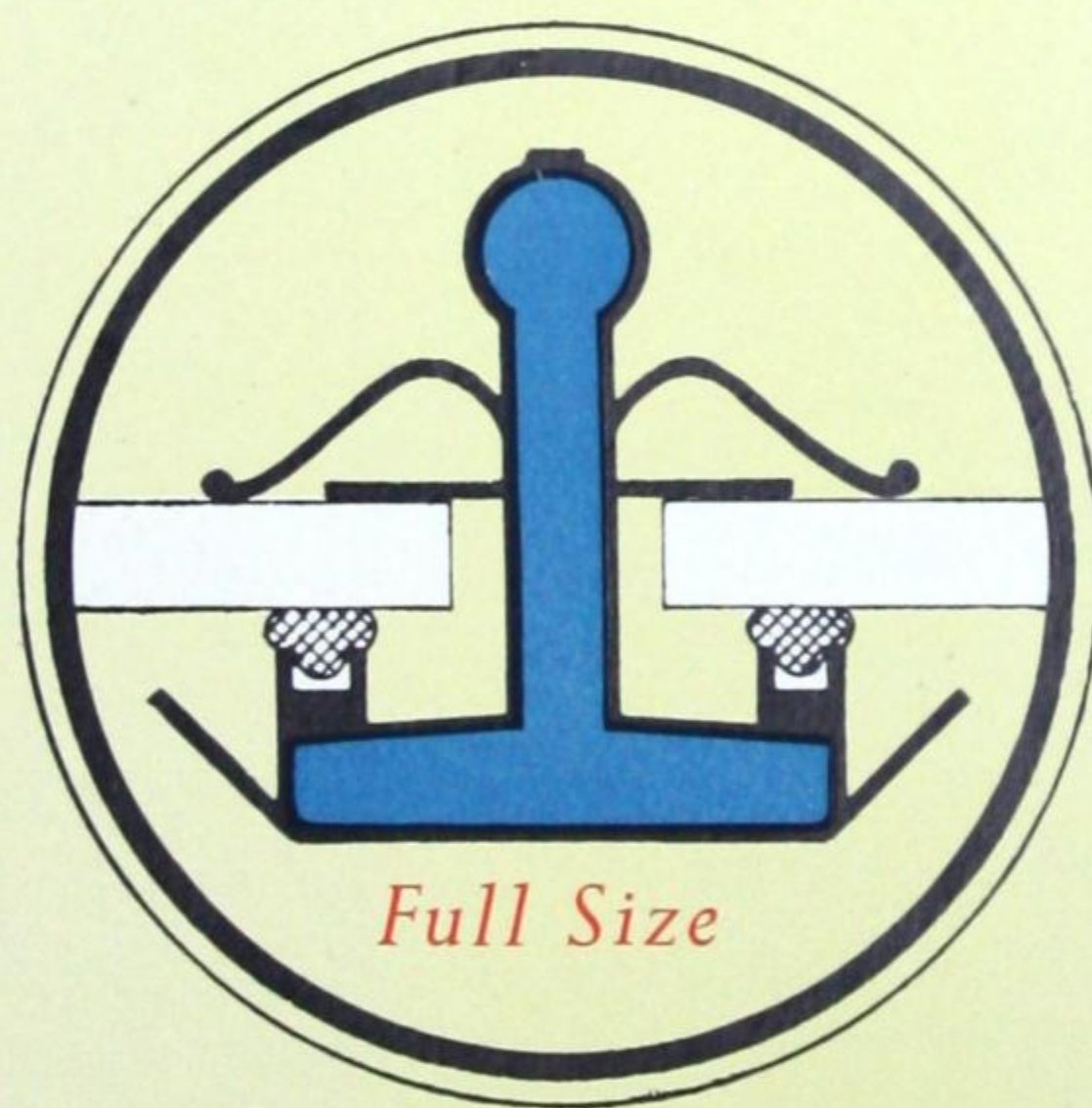


VERTICAL GLAZING to Steelwork



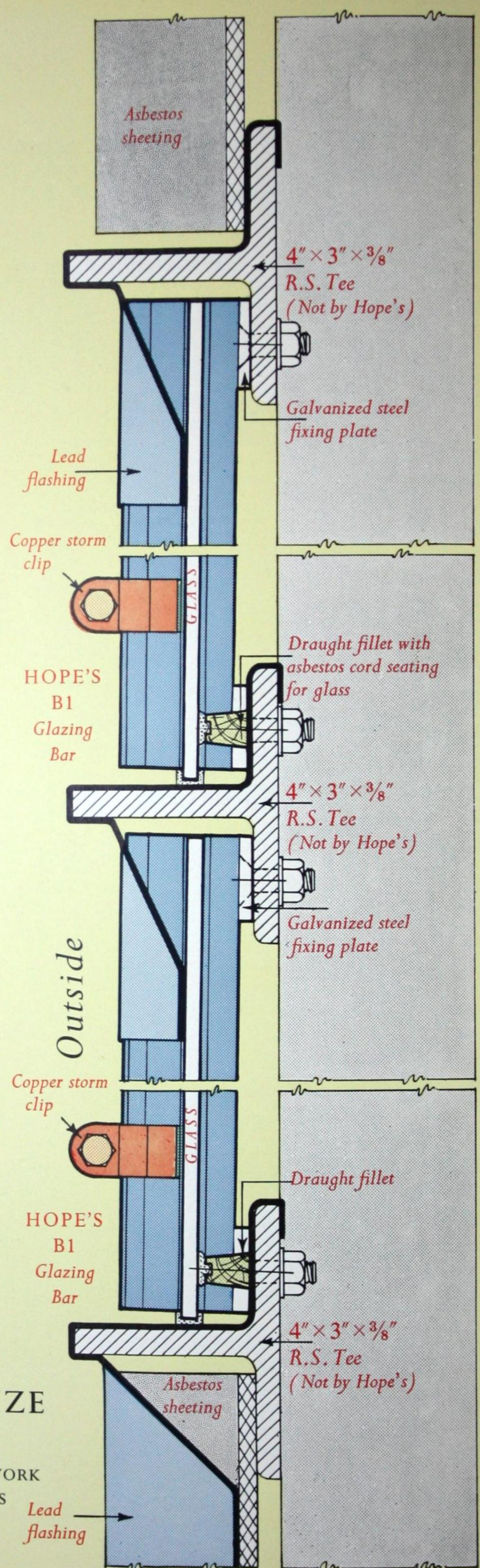
I.C.P. ALDERLEY PARK, CHESHIRE
Harry S. Fairhurst & Son, Chartered Architects and Surveyors

HOPE'S B1 Bar
for spans up to 7' 6"



HALF FULL SIZE DETAILS

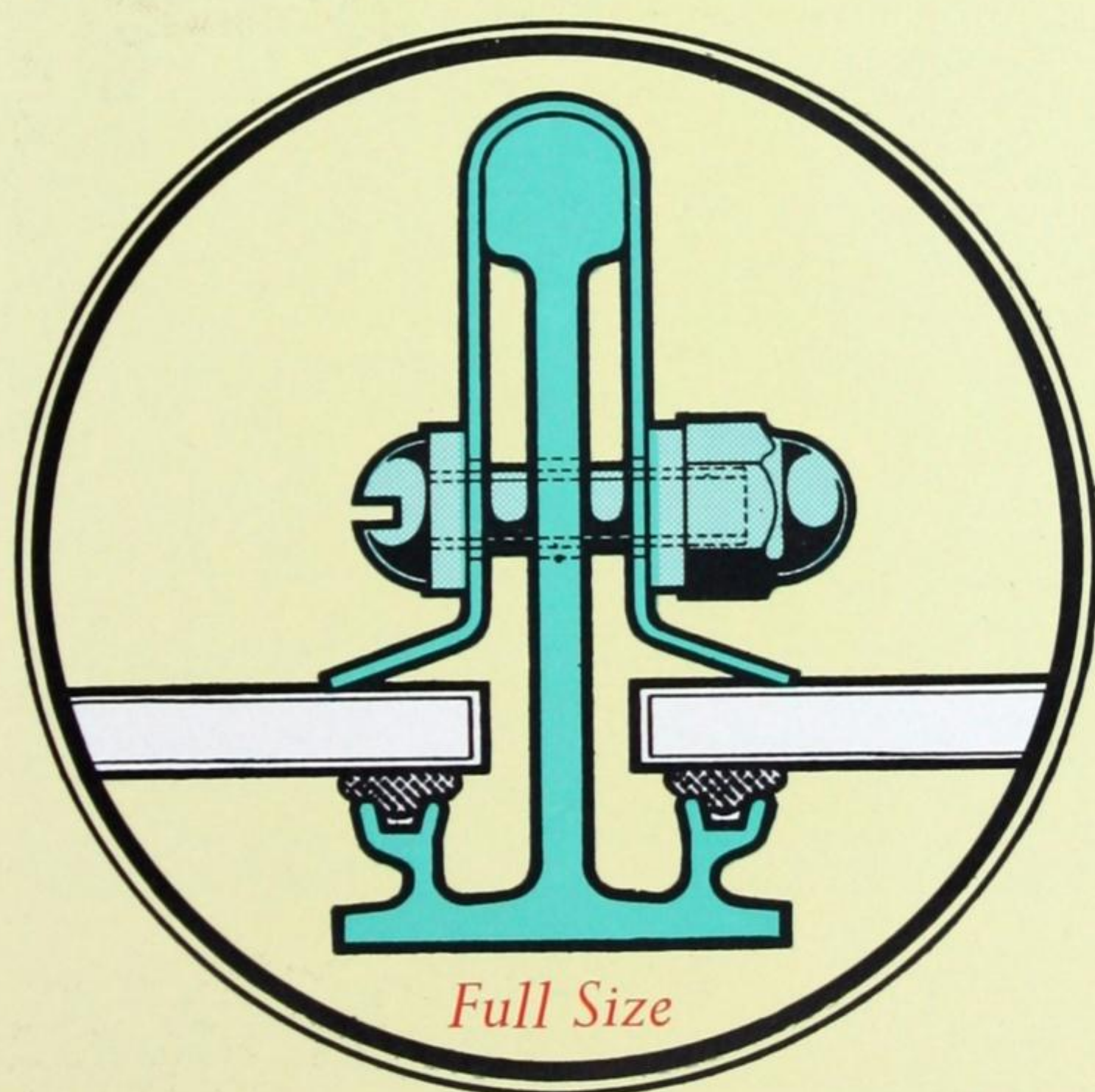
SEE PAGE 7 FOR STEELWORK
DRILLING POSITIONS



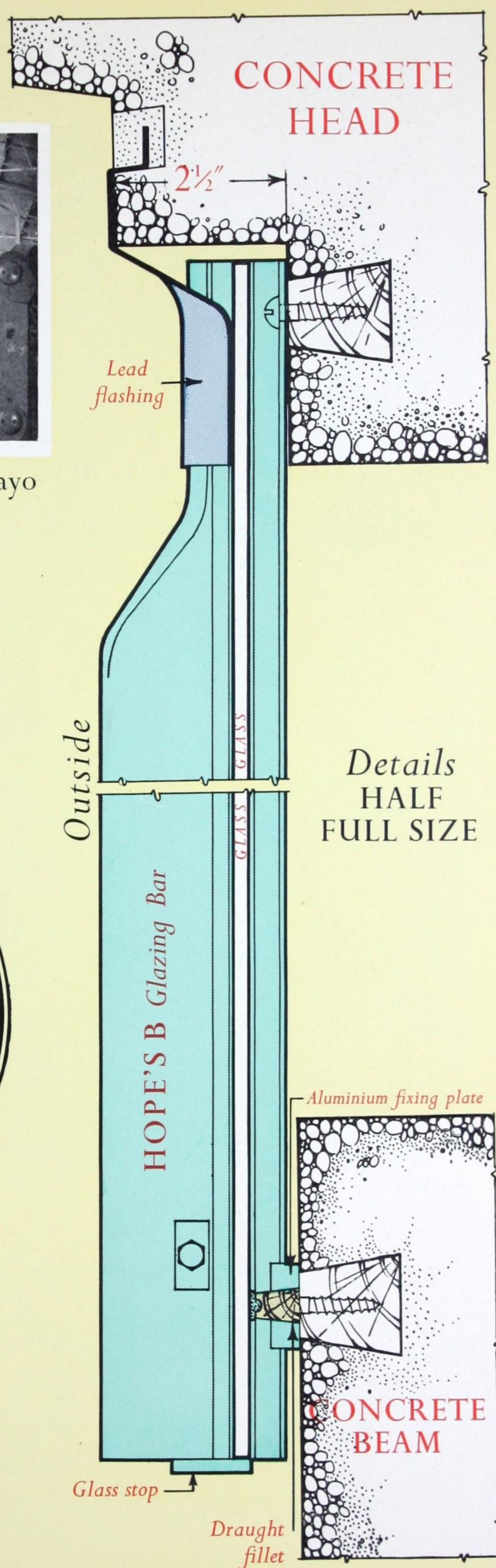
VERTICAL GLAZING *to Concrete*



DUNLOP RUBBER CO. LTD, Bulawayo
Stuart Bentley F.R.I.B.A., Architect



HOPE'S B Bar
for spans up to 9' 0"



HOPE'S *Vertical Patent Glazing*



I·C·I·LTD, WITTON

Boiler House

Consulting Architects: A.M. Gear & Associates

On pages 26–33 we show photographs and details of several recent contracts for vertical glazing to illustrate the great variety of treatment which can be obtained by the use of our bars. We are always glad of the opportunity to submit schemes for special requirements.

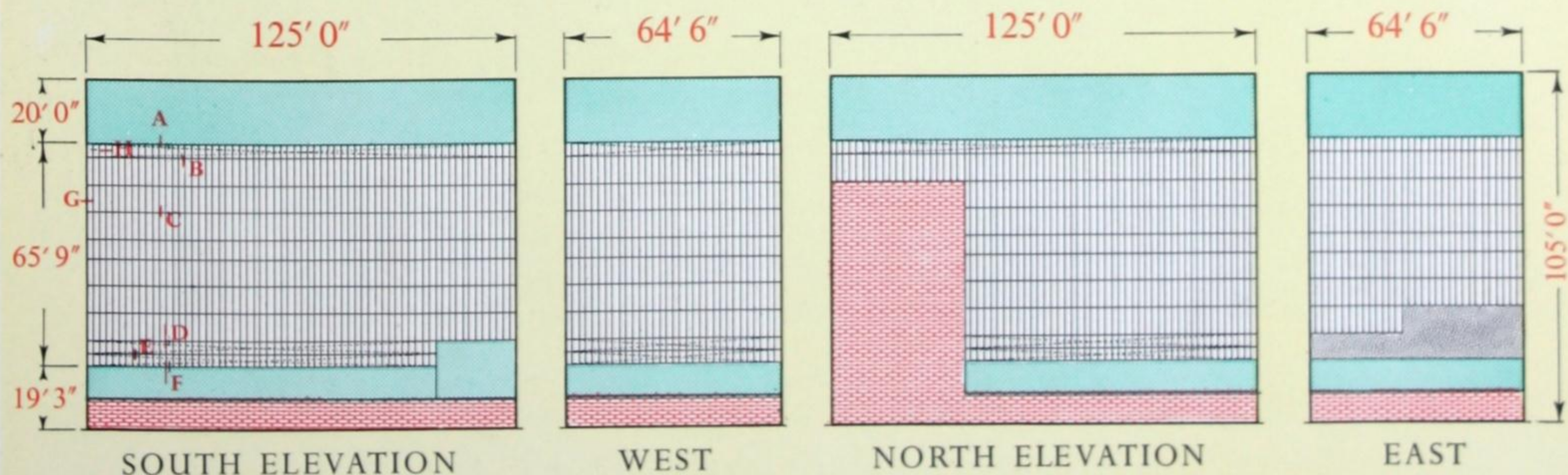
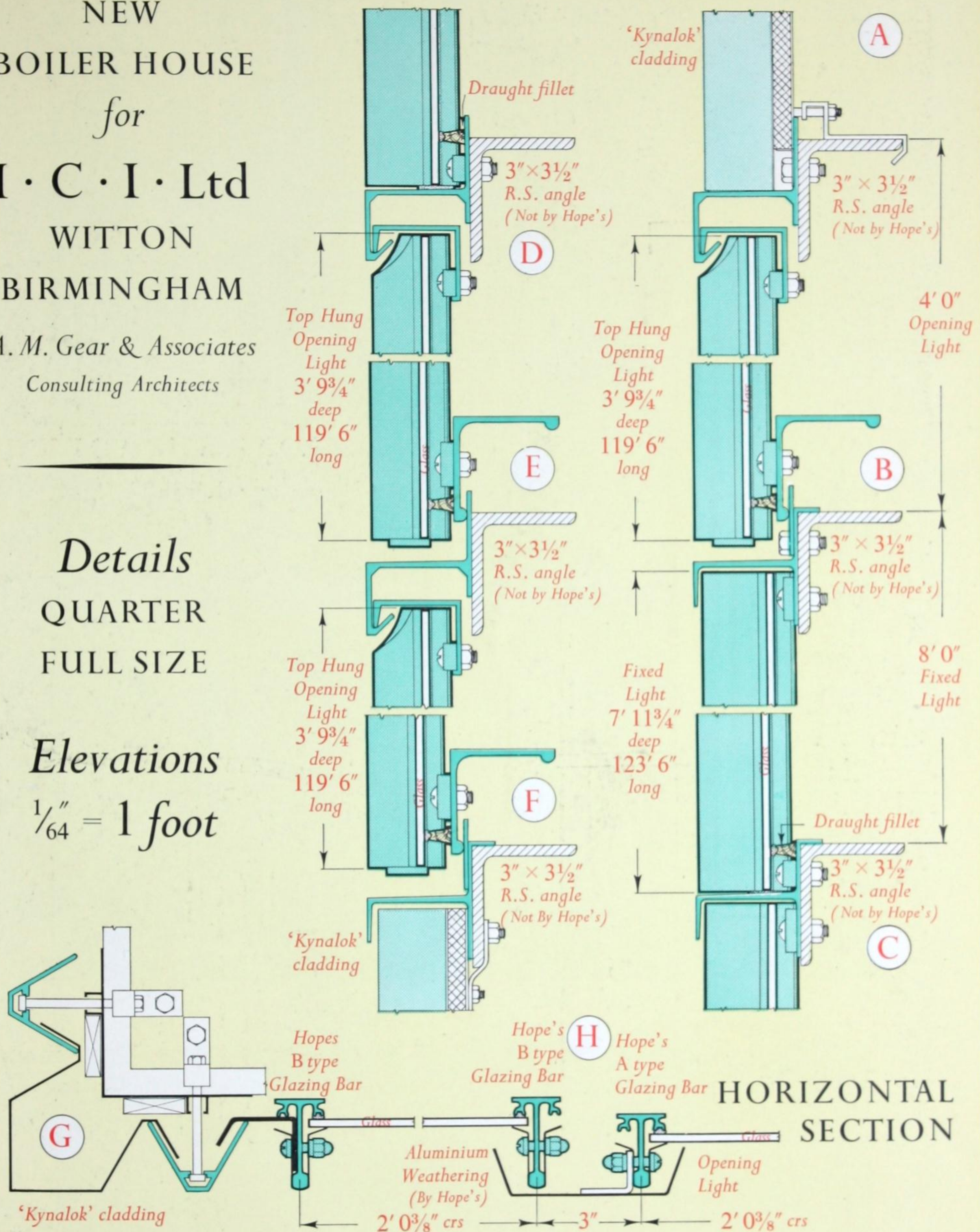
HOPE'S Vertical Patent Glazing

NEW
BOILER HOUSE
for
I · C · I · Ltd
WITTON
BIRMINGHAM
A. M. Gear & Associates
Consulting Architects

Details
QUARTER
FULL SIZE

Elevations
 $\frac{1}{64}'' = 1 \text{ foot}$

VERTICAL SECTIONS



HOPE'S *Vertical Patent Glazing*



THE BRISTOL AEROPLANE COMPANY LTD

Architect: Eric Ross, F.R.I.B.A.

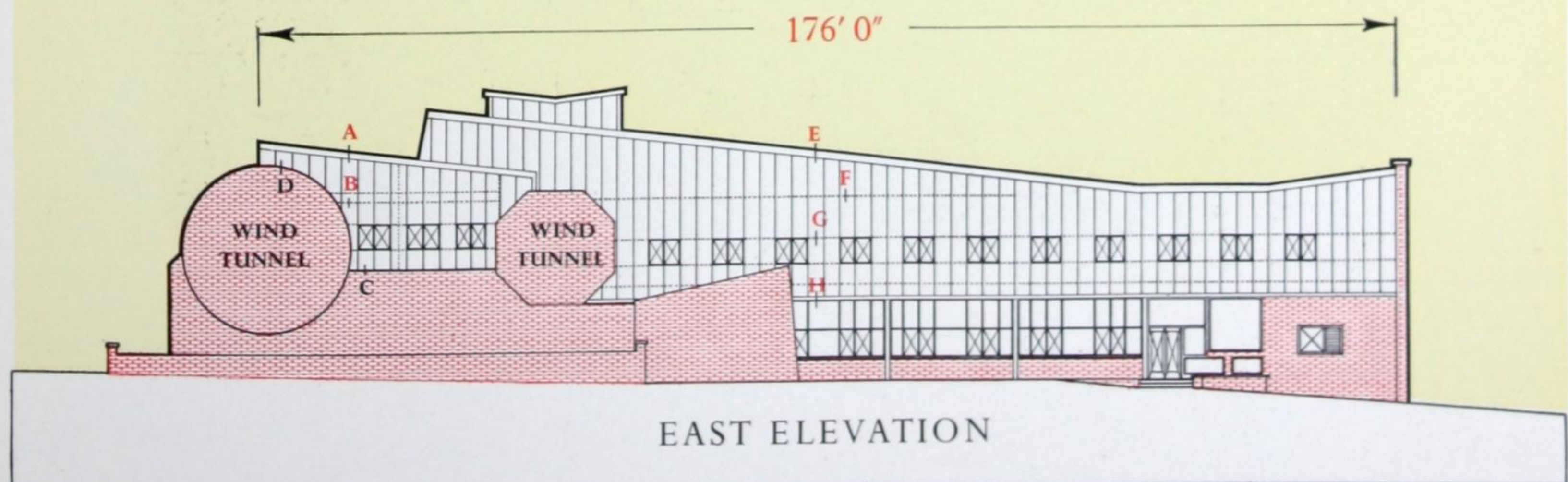
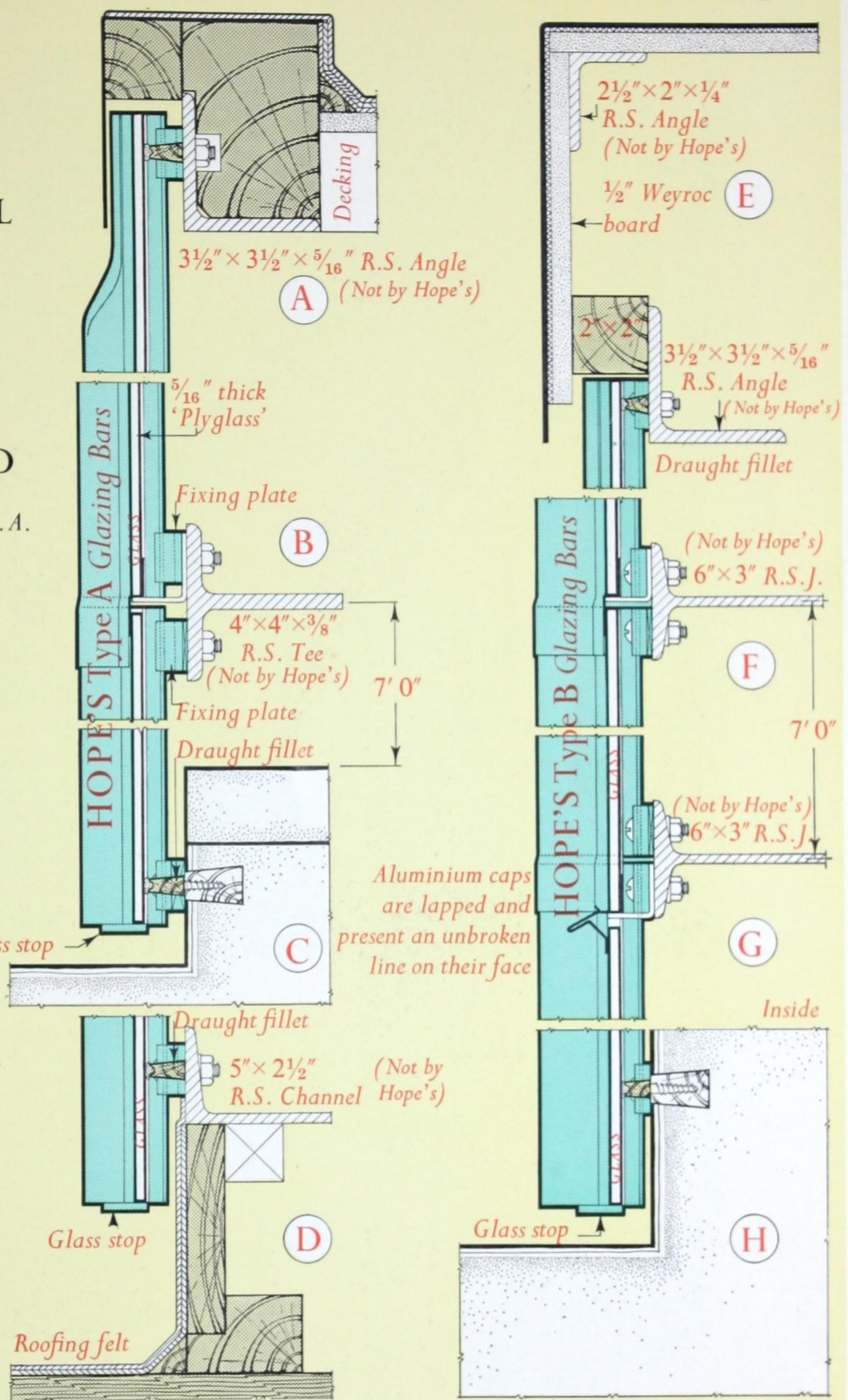
HOPE'S Vertical Patent Glazing

No. 4
WIND TUNNEL
for
THE BRISTOL
AEROPLANE
COMPANY LTD

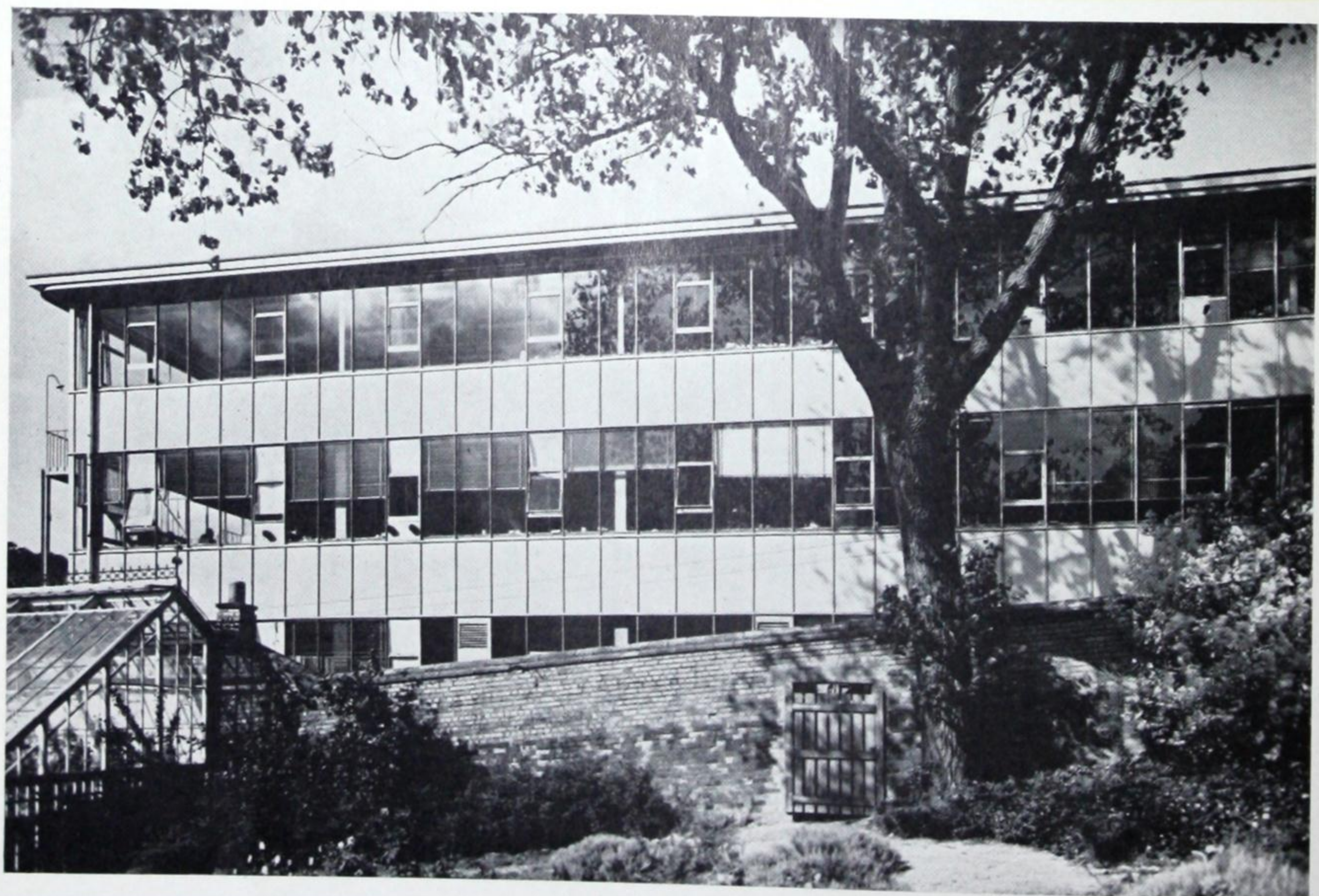
Architect: Eric Ross, F.R.I.B.A.

Details
QUARTER
FULL SIZE

Elevations
 $\frac{1}{32}'' = 1 \text{ foot}$



HOPE'S *Vertical Patent Glazing*



TEBBUTT & HALL BROTHERS LTD, Northampton
Architects: Gotch, Saunders & Surridge

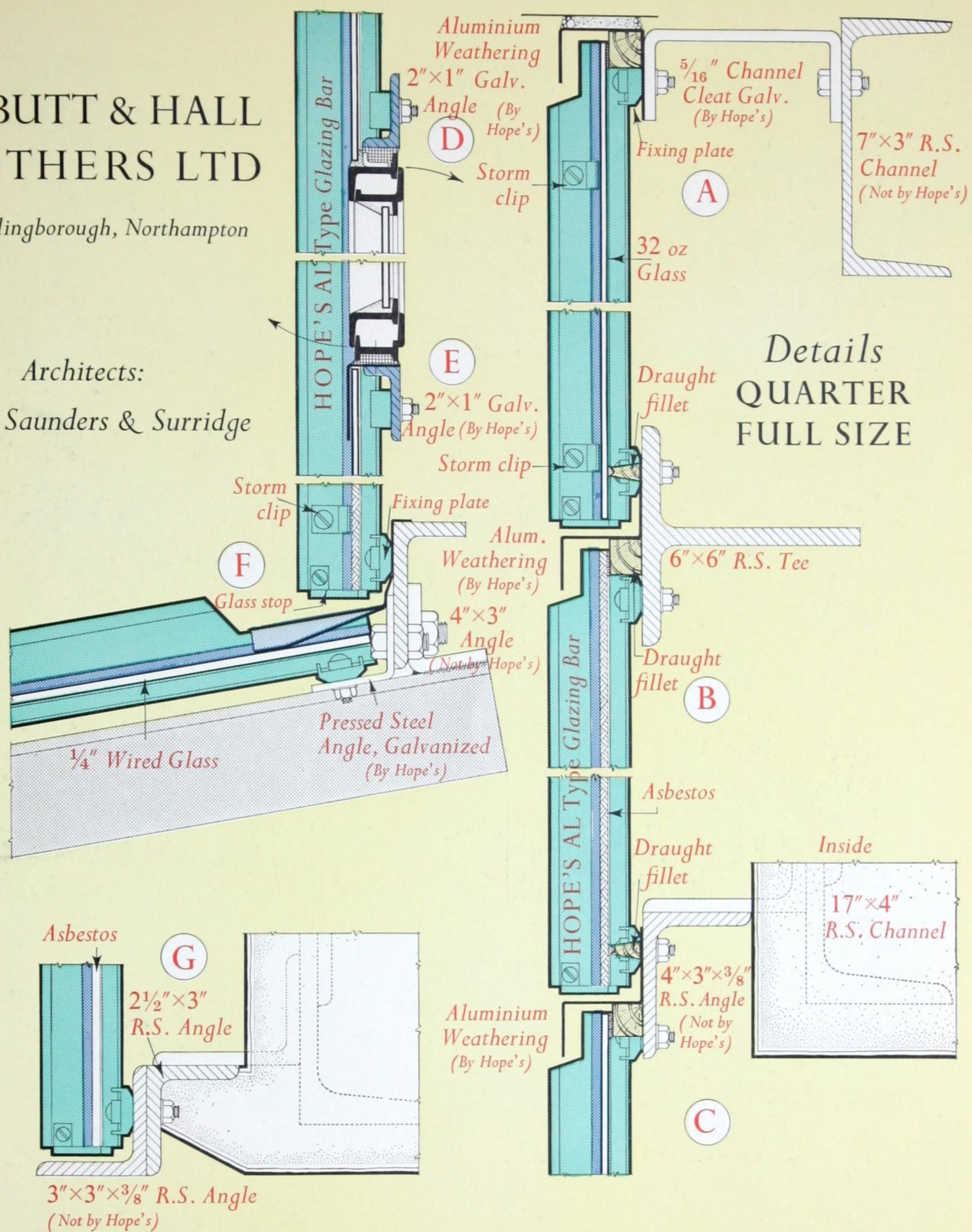
HOPE'S Vertical Patent Glazing

TEBBUTT & HALL
BROTHERS LTD

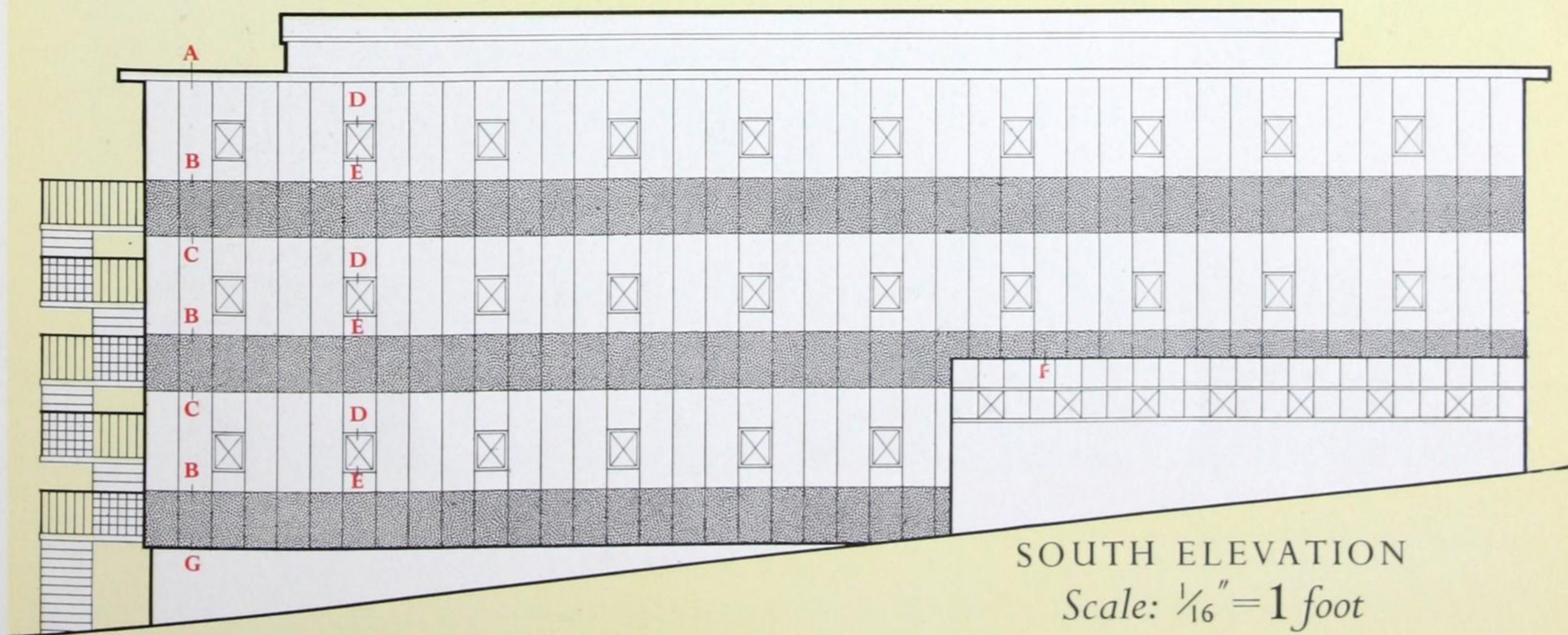
Nr. Wellingborough, Northampton

Architects:

Gotch, Saunders & Surridge



Details
QUARTER
FULL SIZE



HOPE'S *Vertical Patent Glazing*



THE AUSTIN MOTOR COMPANY

Harry W. Weedon, F.R.I.B.A., and Partners, Chartered Architects

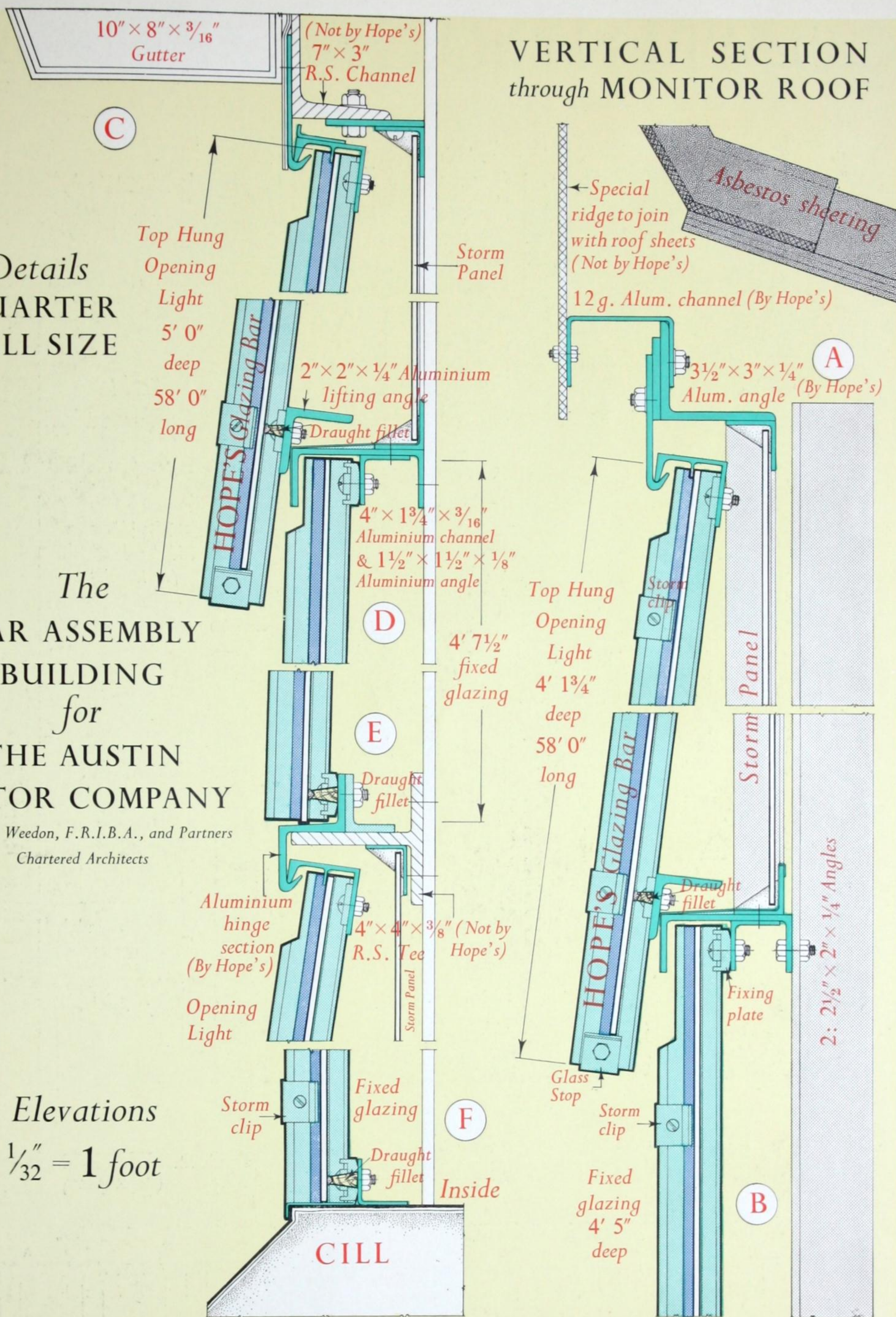
Details
QUARTER
FULL SIZE

The
CAR ASSEMBLY
BUILDING
for
THE AUSTIN
MOTOR COMPANY

Harry W. Weedon, F.R.I.B.A., and Partners
Chartered Architects

Elevations
 $\frac{1}{32}'' = 1 \text{ foot}$

VERTICAL SECTION through MONITOR ROOF

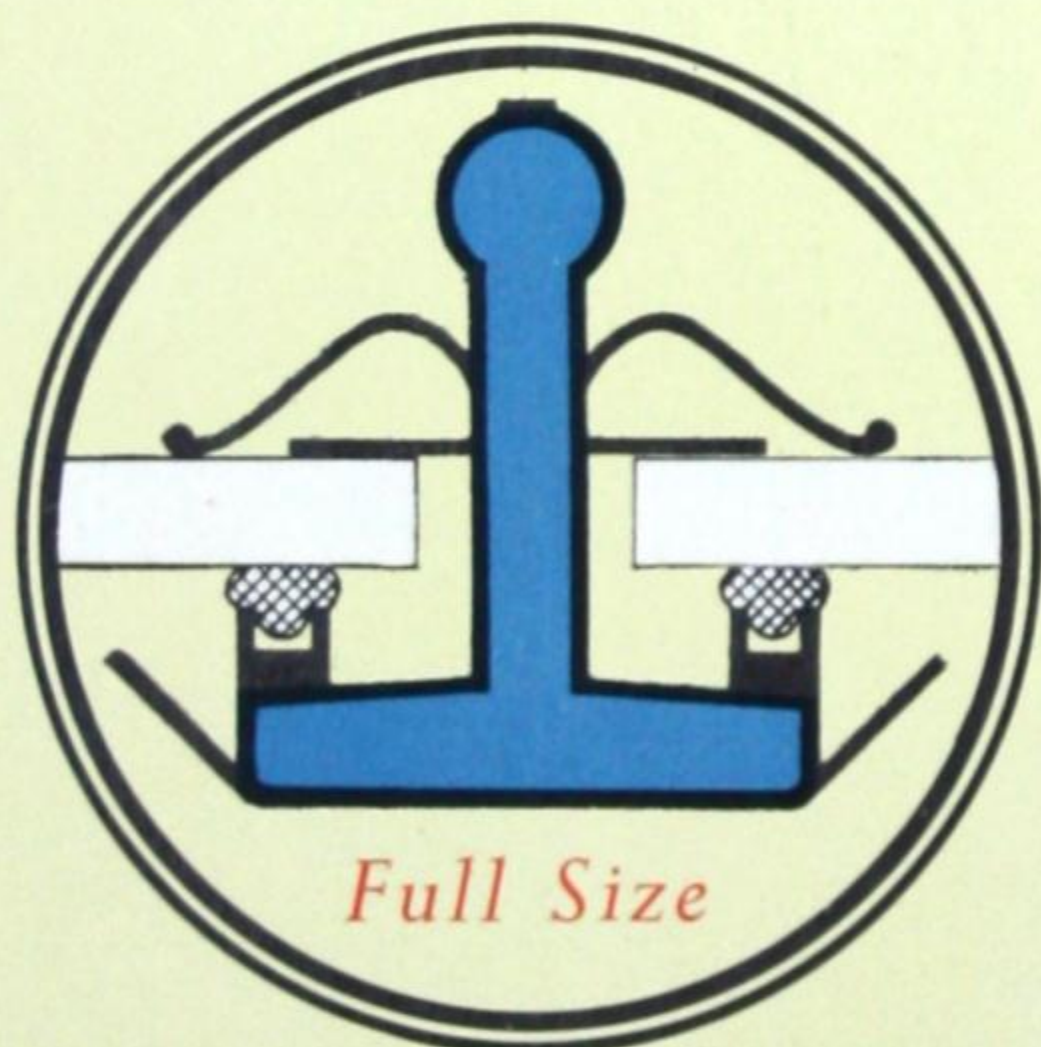


214' 0"
NORTH WEST ELEVATION

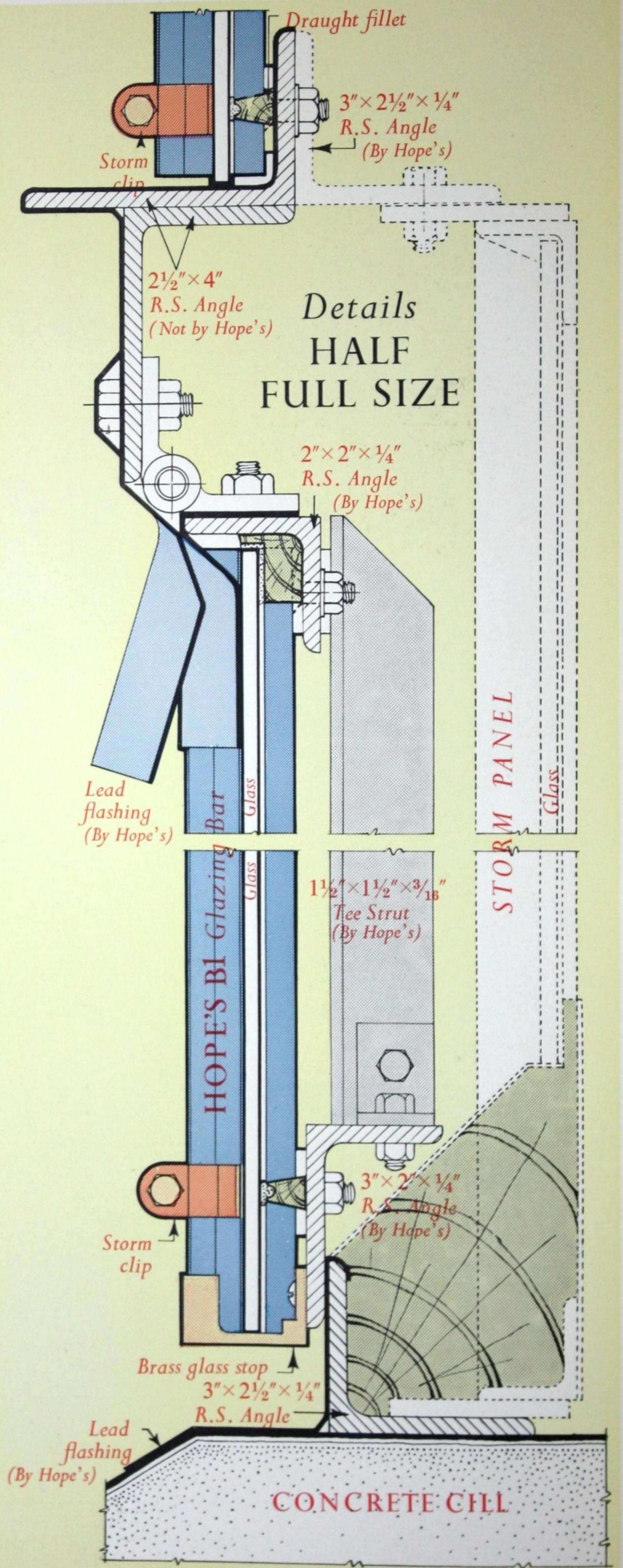
CONTINUOUS OPENING



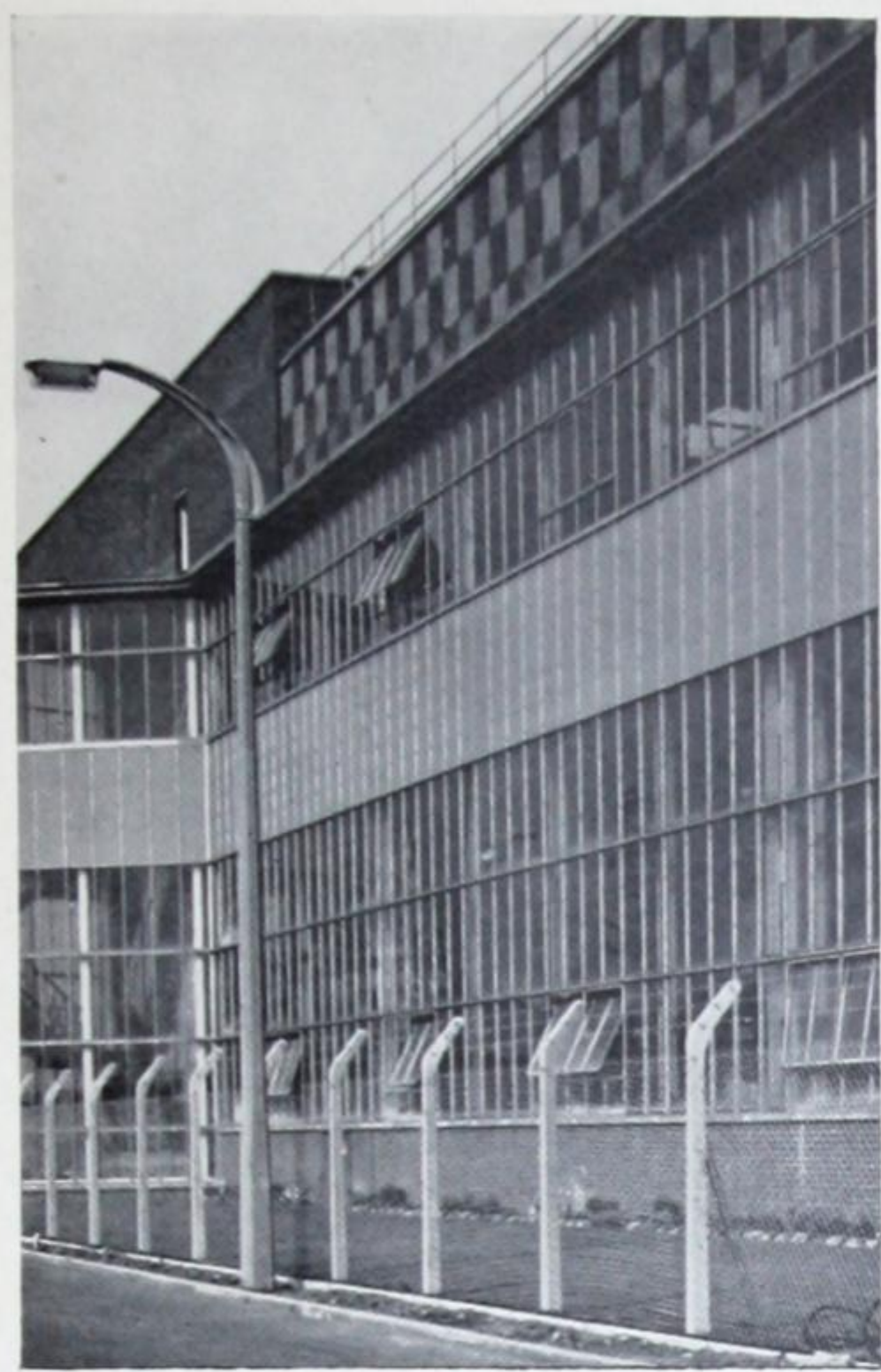
Priestman Brothers Ltd, Hull
Priestman & Lazenby, Chartered Architects



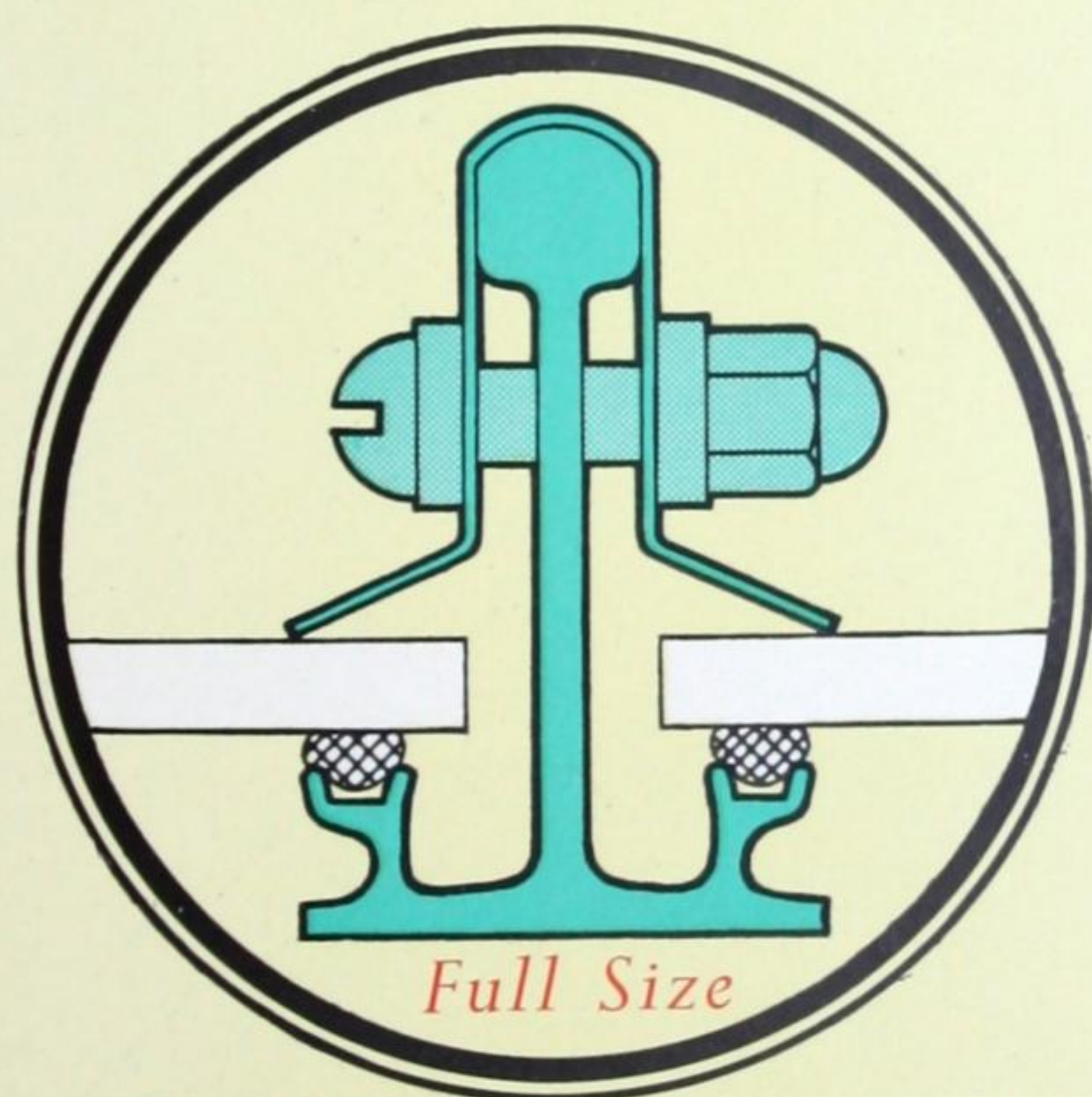
HOPE'S B1 Bar
for spans up to 7' 6"



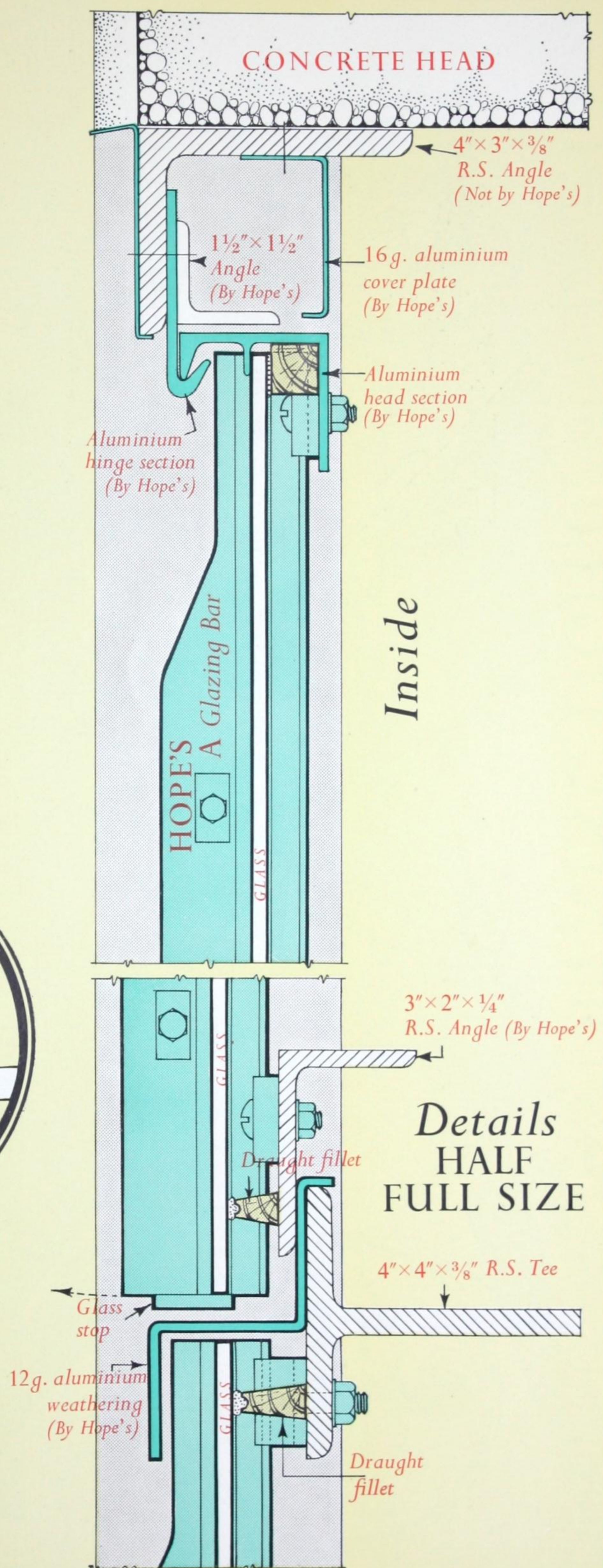
LIGHTS *Applied to Vertical Glazing*



Ford Motor Co. Ltd, Dagenham
 Martin Hutchinson, L.R.I.B.A., Architect
 Posford, Parry & Partners
 Consulting & Chartered Civil Engineers



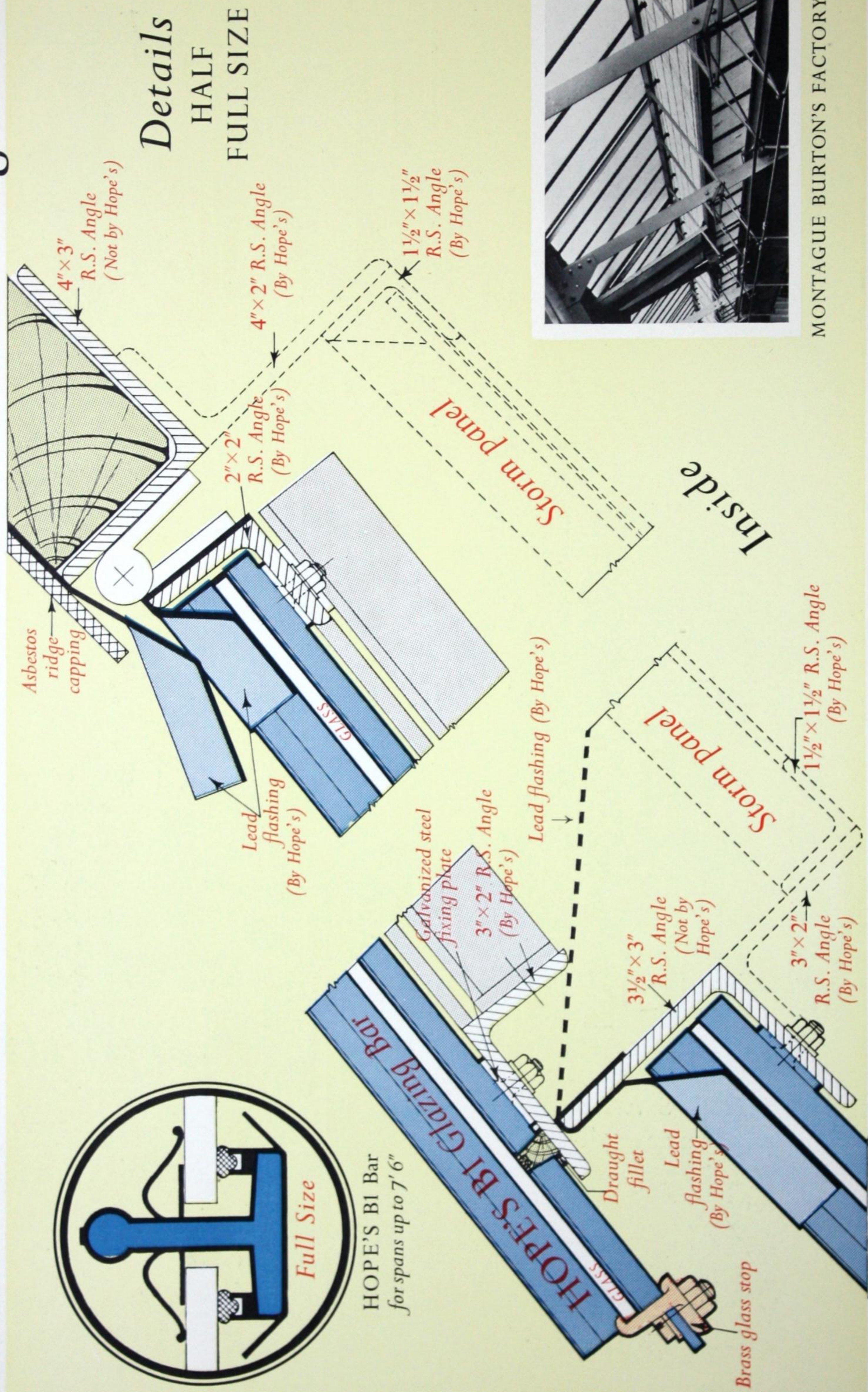
HOPE'S A Bar
 for spans up to 7' 6"



CONTINUOUS OPENING LIGHT North Light Glazing

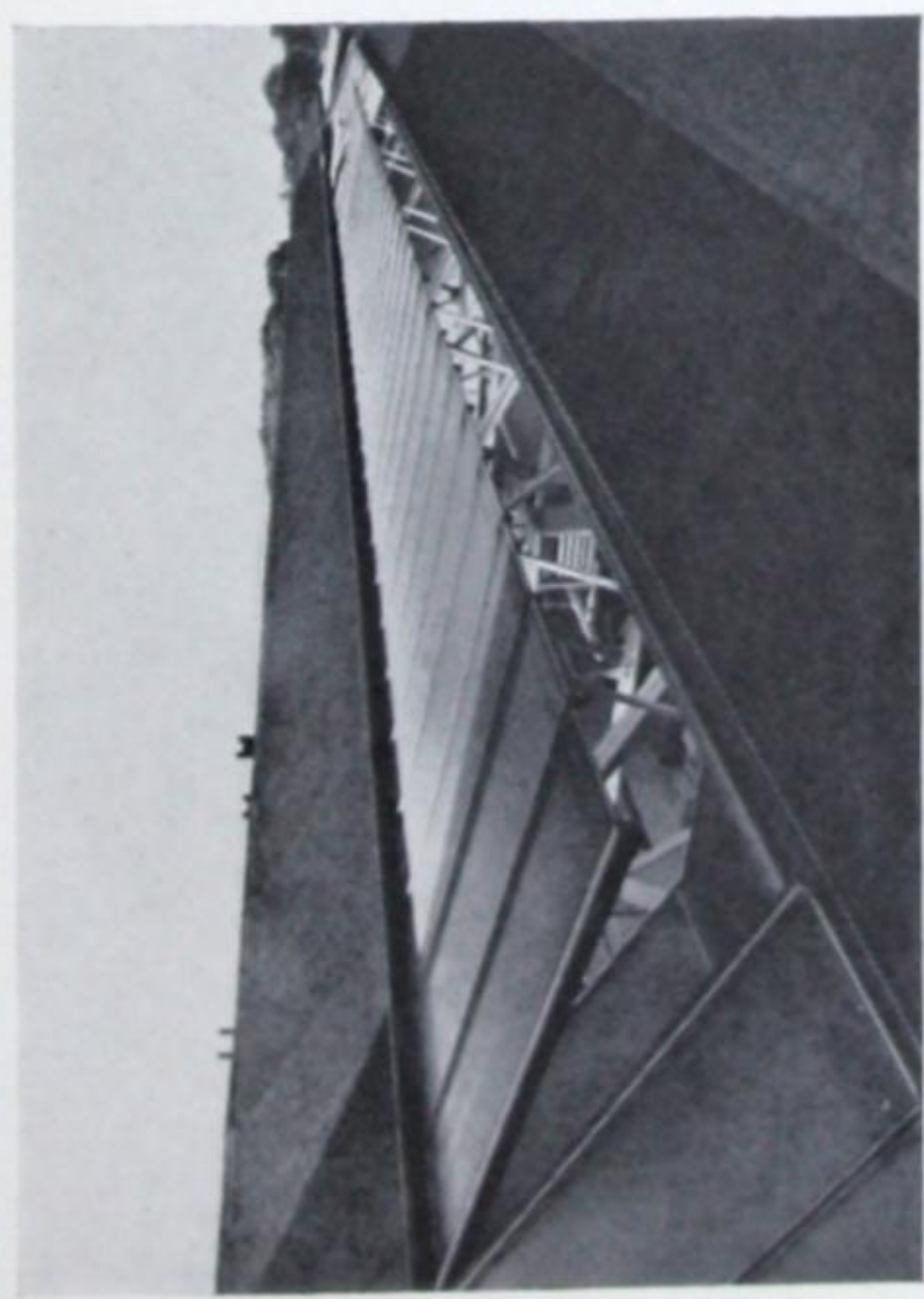


HOPE'S B1 Bar
for spans up to 7' 6"



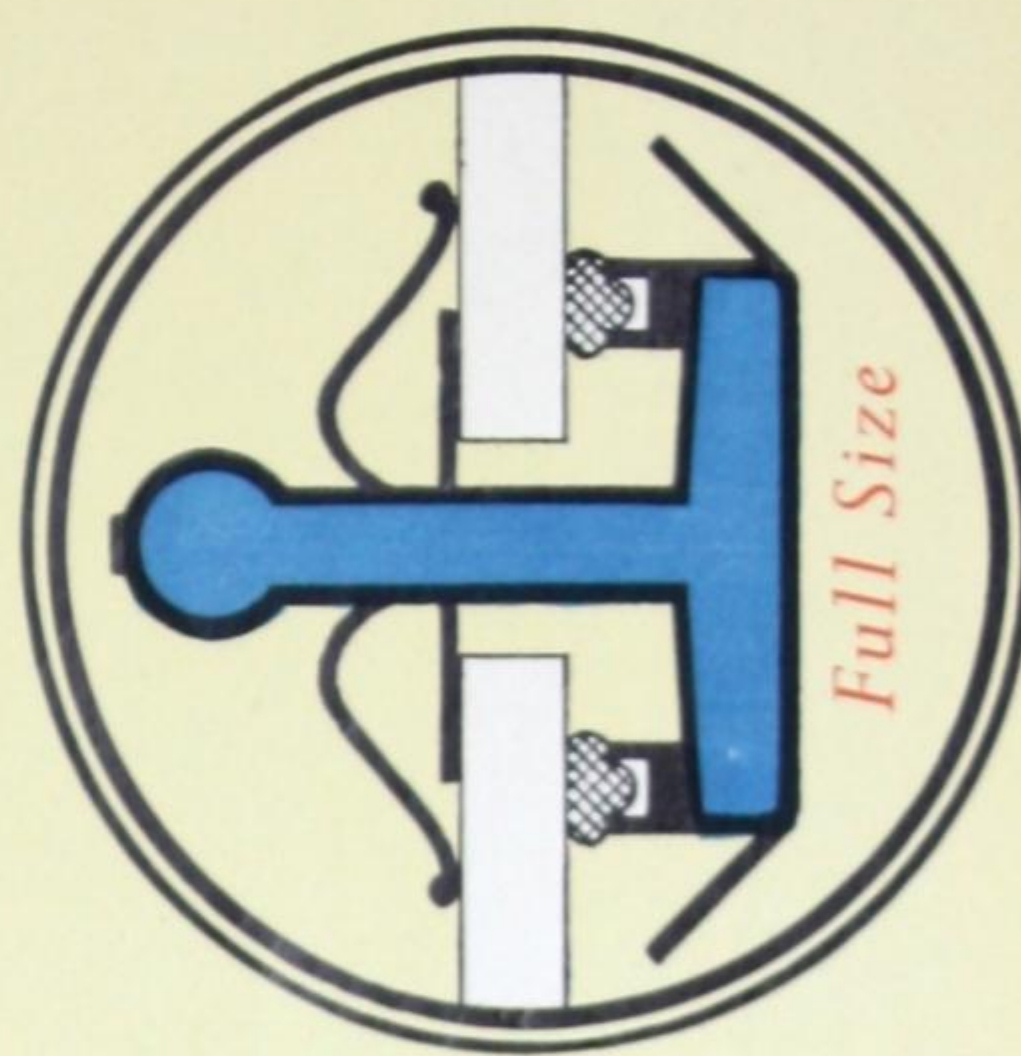
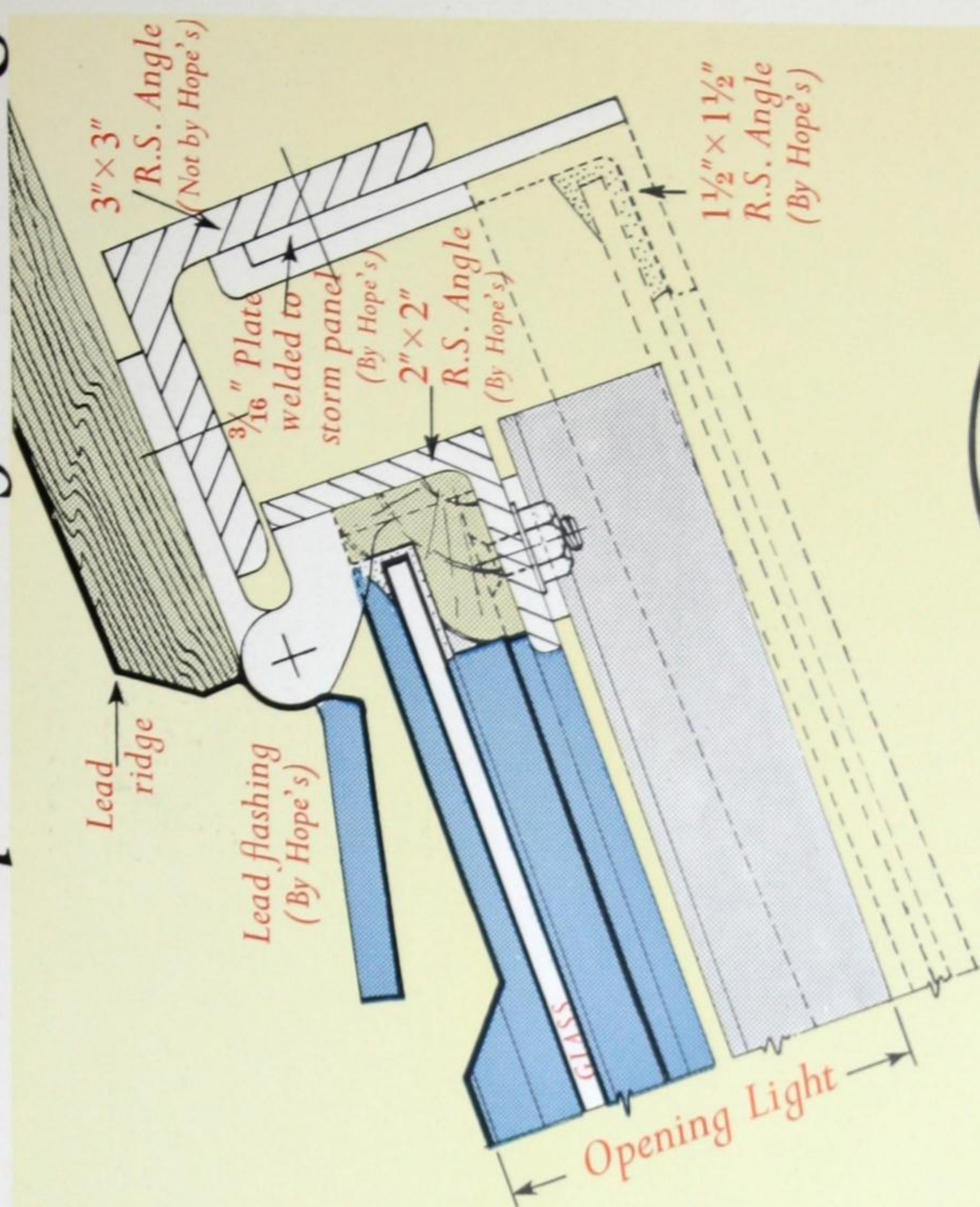
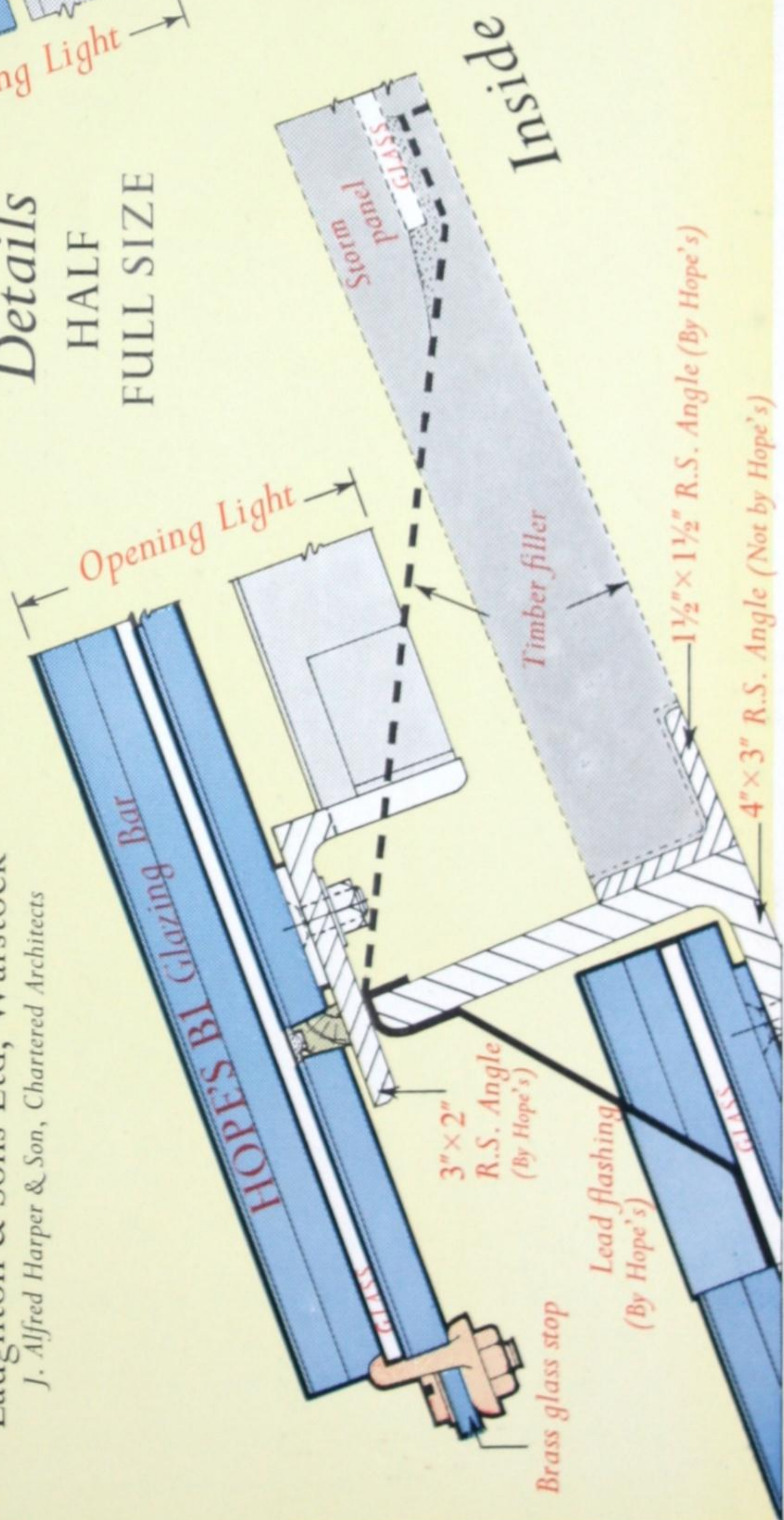
MONTAGUE BURTON'S FACTORY, LEEDS

CONTINUOUS OPENING LIGHT *Span Roof Glazing*



Laughton & Sons Ltd, Warstock
J. Alfred Harper & Son, Chartered Architects

Details
HALF
FULL SIZE



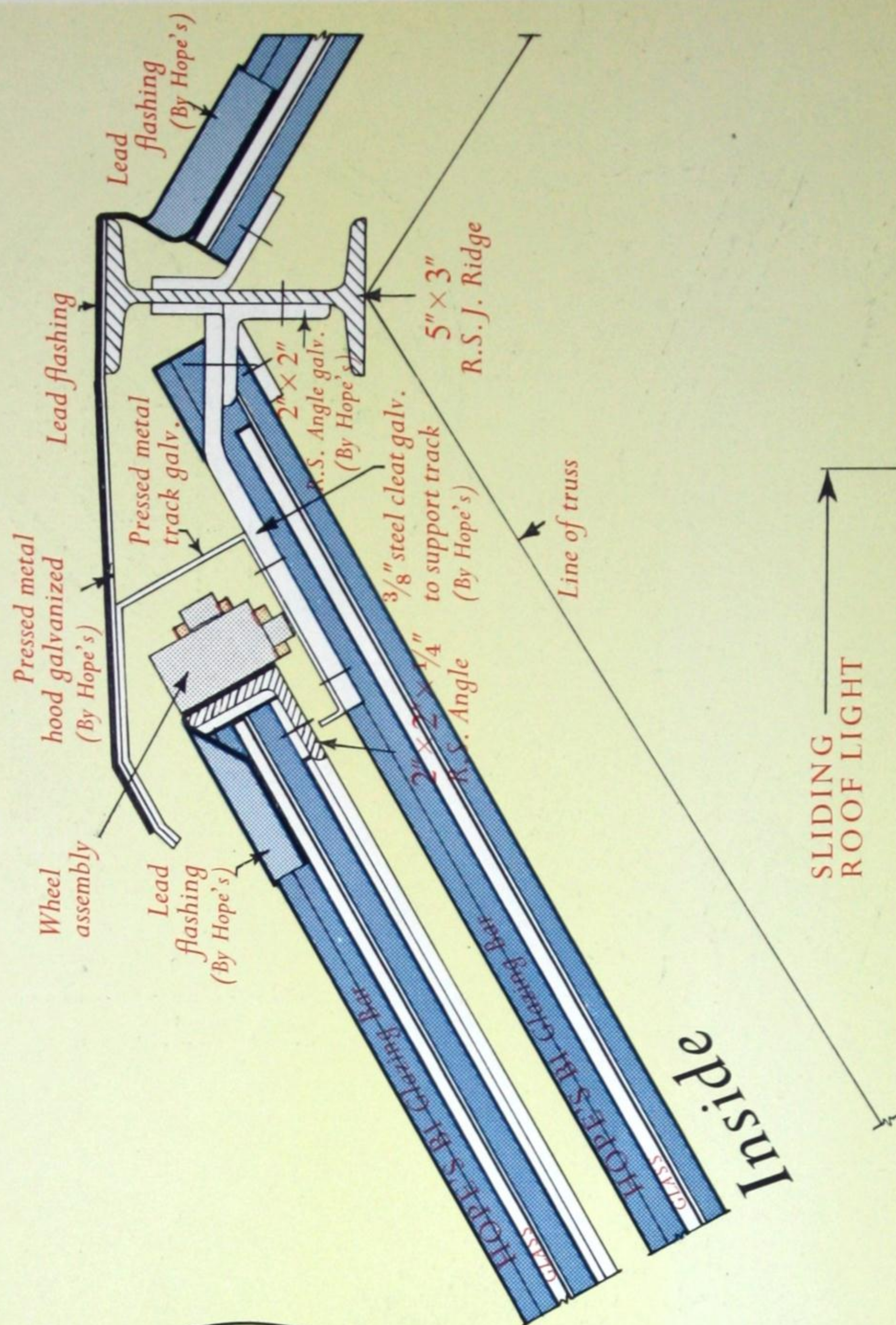
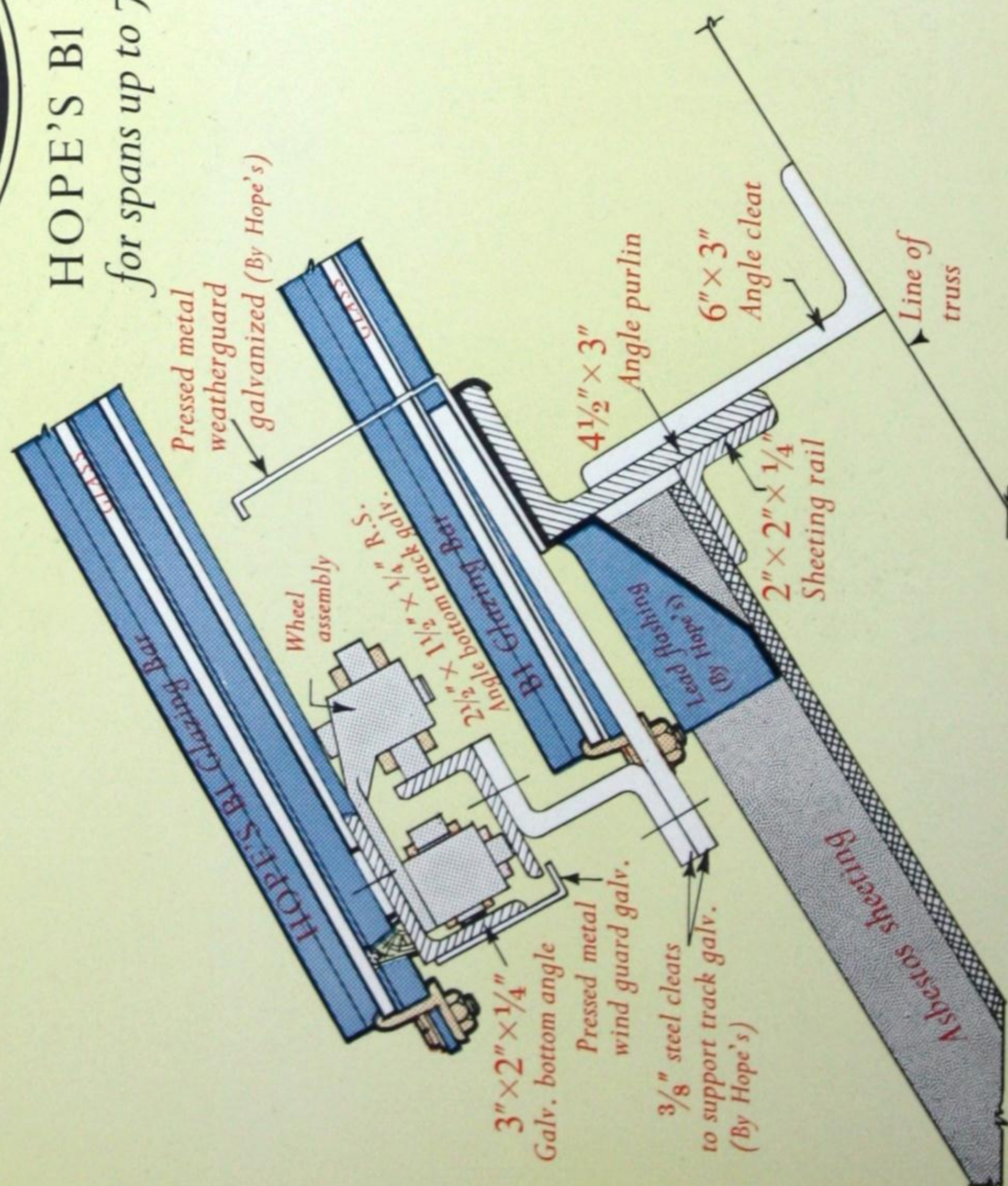
HOPE'S B1 Bar
for spans up to 7' 6"

HOPE'S SLIDING ROOF LIGHTS



Details
QUARTER FULL SIZE

HOPE'S B1 Bar
for spans up to 7'6"



SLIDING — ROOF LIGHT

Pressed metal retaining plates

Rubber weathering

2" x 2"

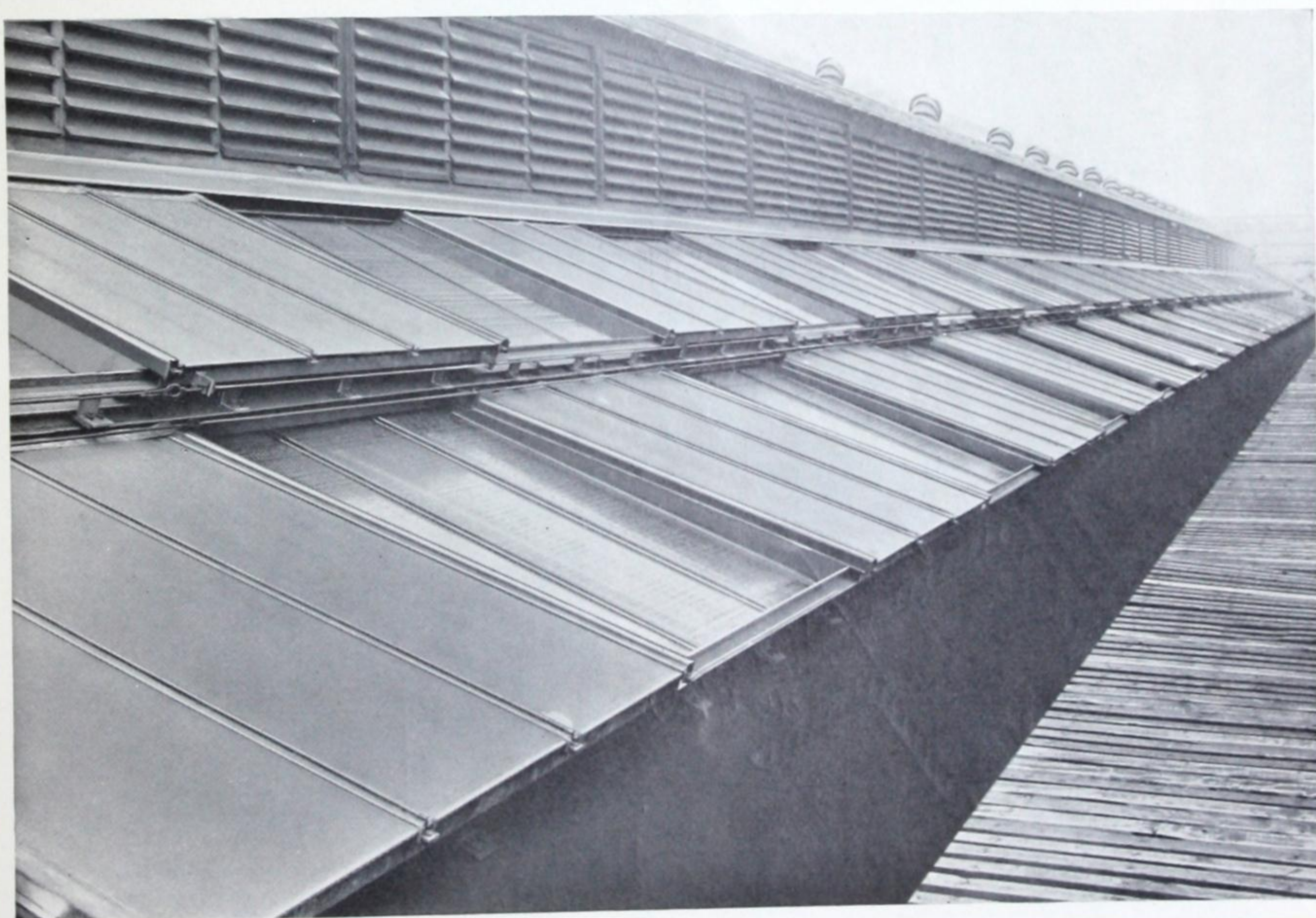
Galv. R.S. Angle (By Hope's)

HOPE'S

BI Glazing Bar

SECTION

HOPE'S *Sliding* ROOF LIGHTS

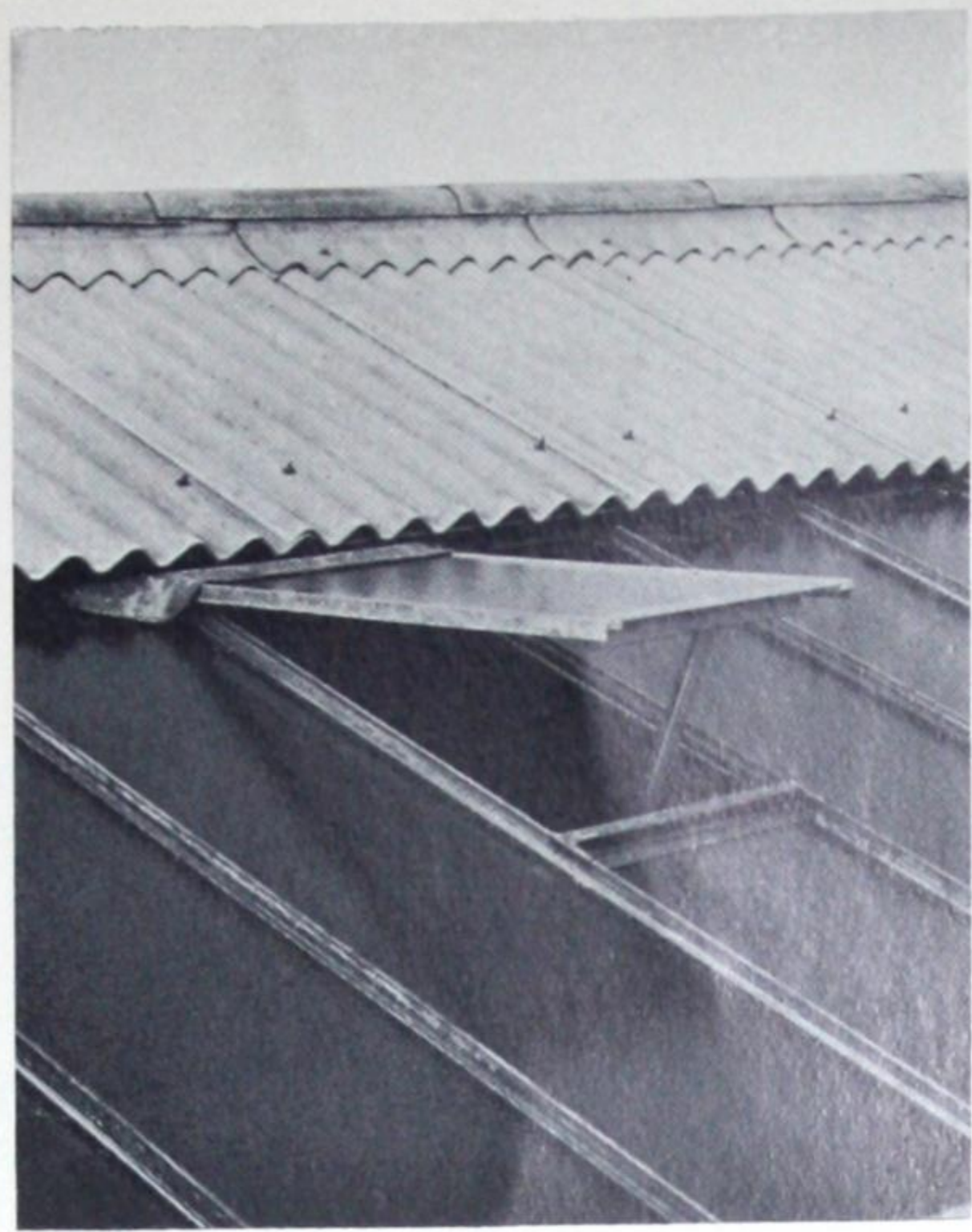


THE DELTA METAL CO. LTD. BIRMINGHAM

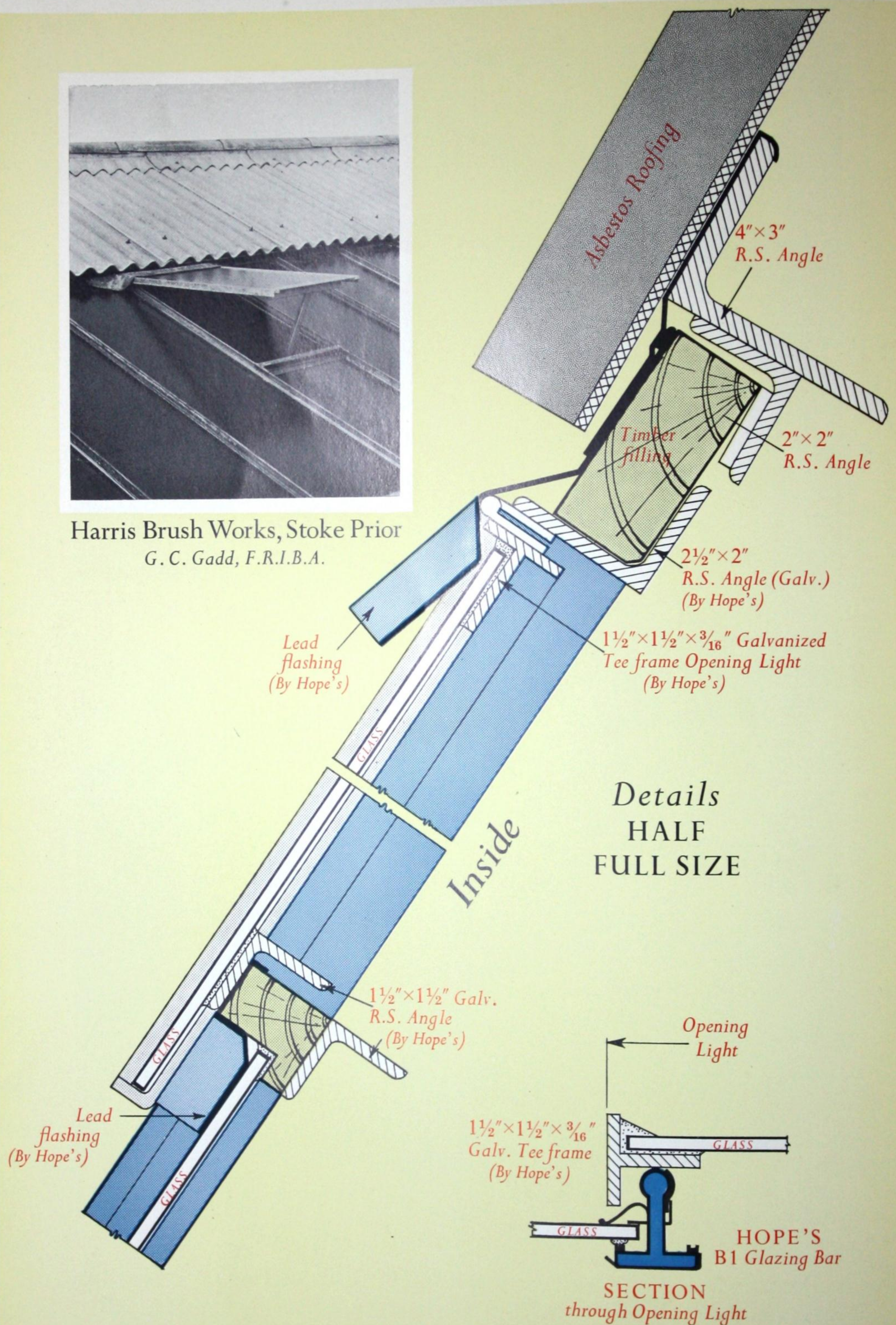
W. J. Green and Associates, Architects

So great was the concentration of fumes in this casting shop that the wooden louvres and extractor cowls were quite inadequate. After fitting Hope's Sliding Ventilators, however, the air was kept clear of fumes at all times. At a touch of the electric push-button whole sections of the roof can be opened to any desired degree. When closed they are completely weatherproof and admit ample daylight.

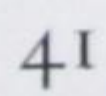
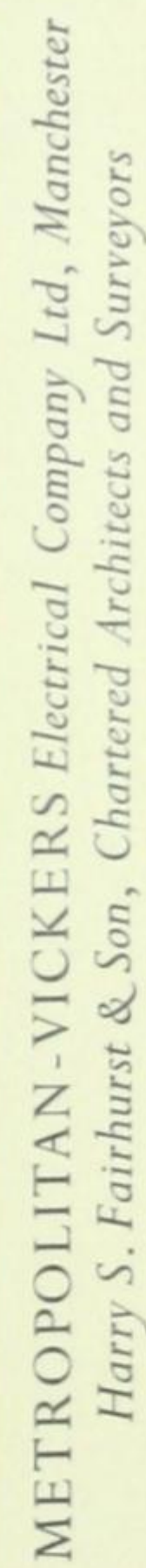
SINGLE LIGHT VENTILATORS



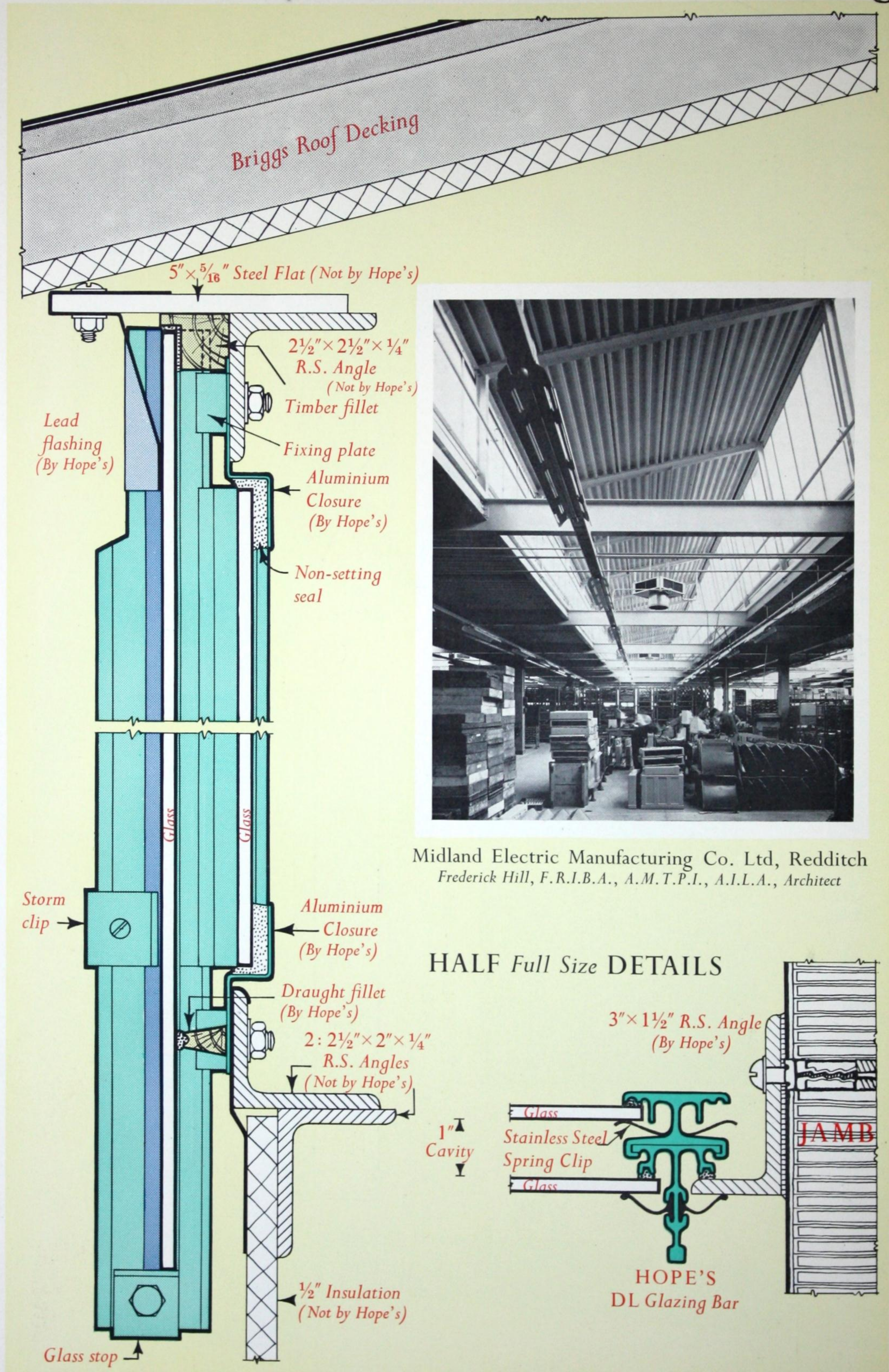
Harris Brush Works, Stoke Prior
G. C. Gadd, F.R.I.B.A.



S

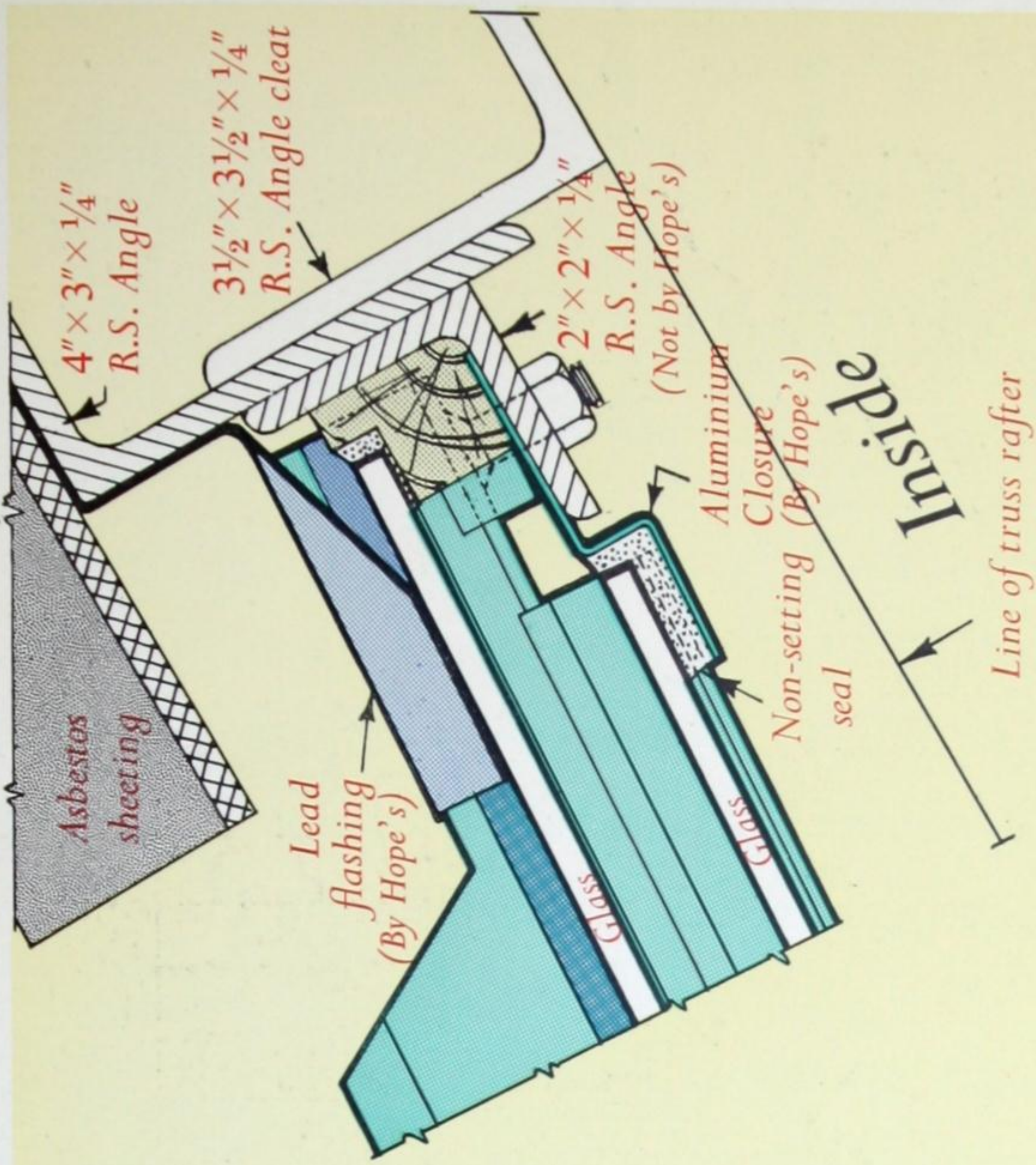
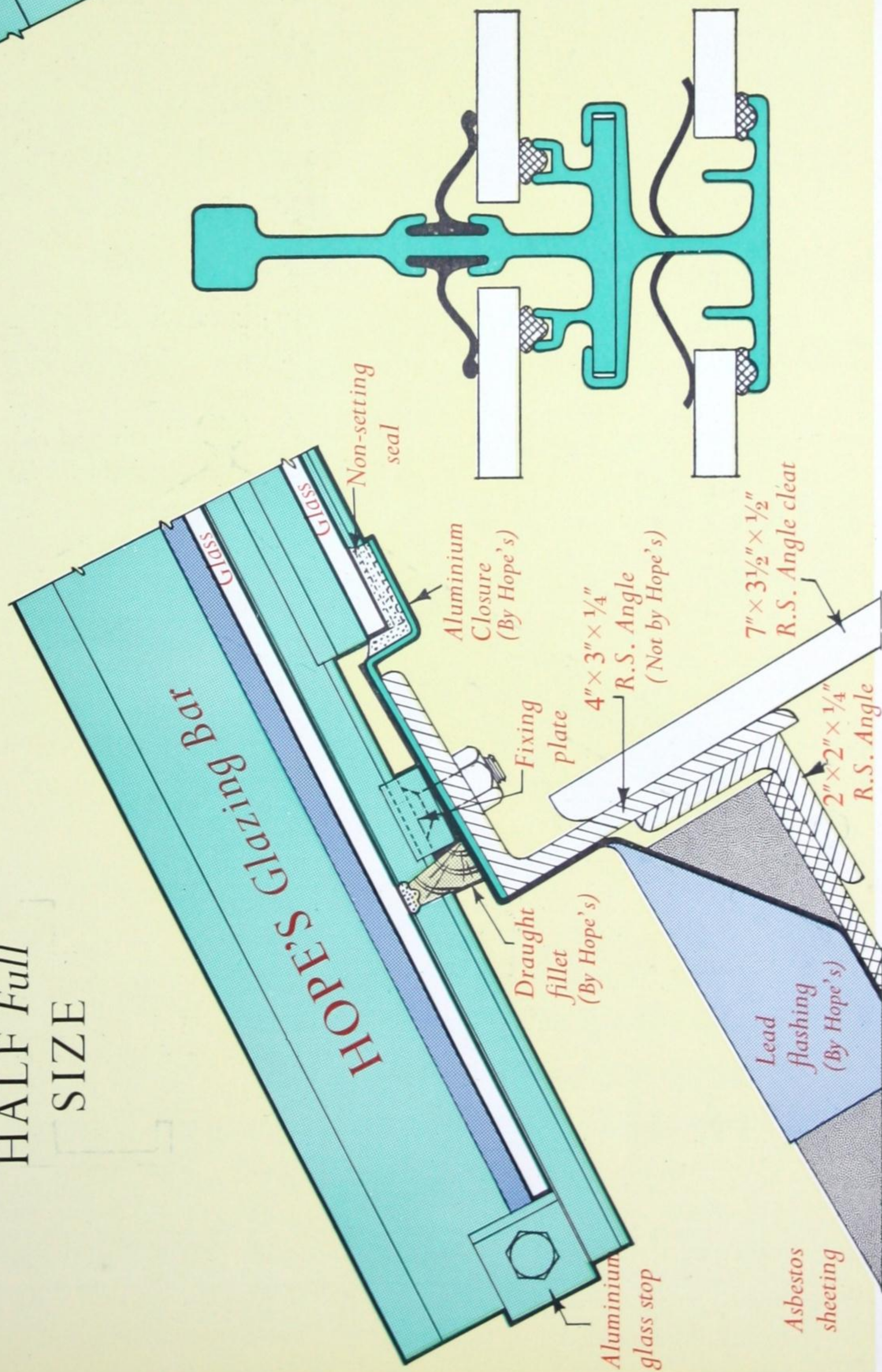


Vertical DOUBLE Patent Glazing



SPAN ROOF Double PATENT GLAZING

Details
HALF Full
SIZE



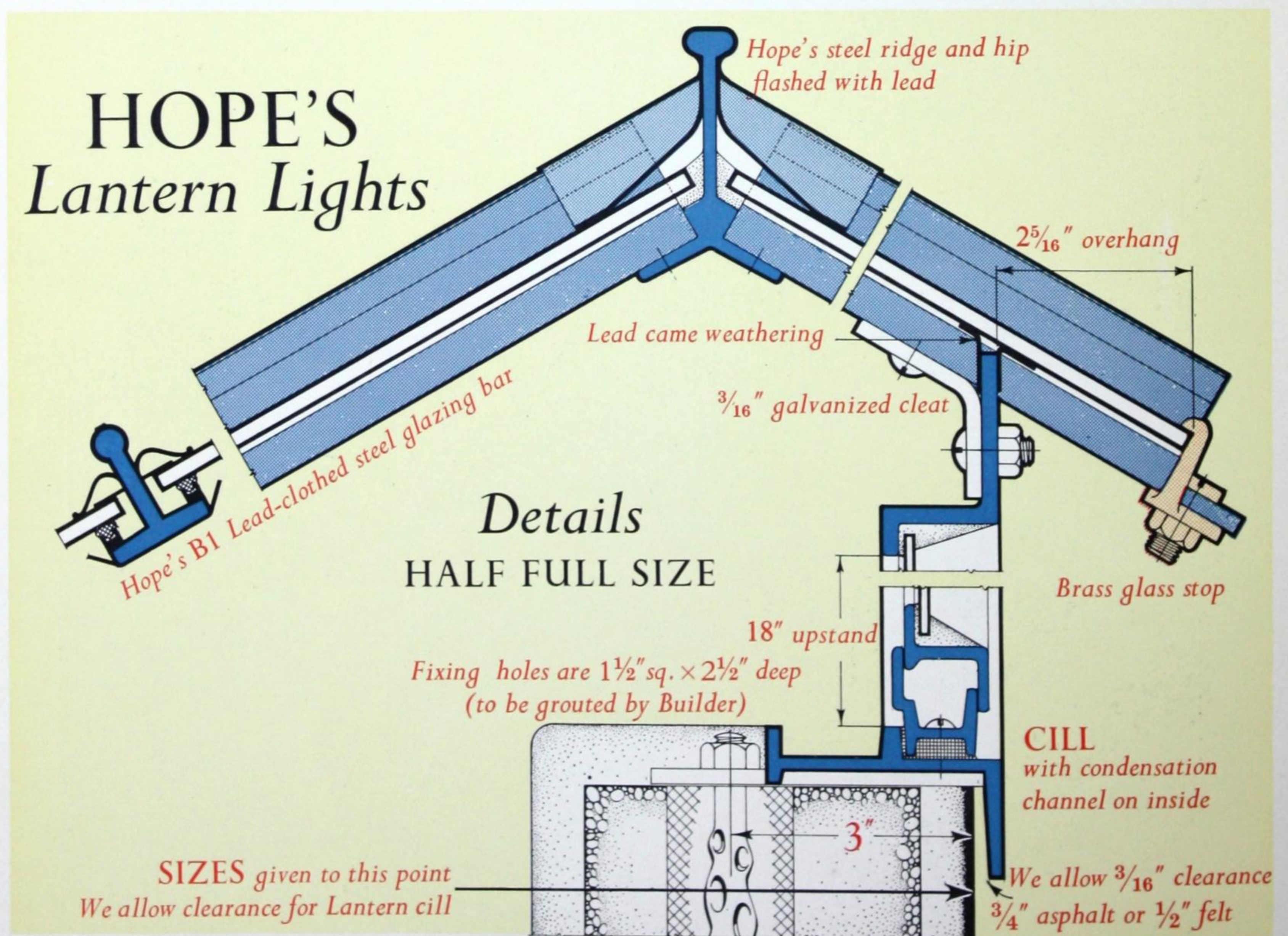
FULL SIZE
Section of
HOPE'S DBL BAR

HOPE'S

Lantern Lights, Skylights & Domelights

HOPE'S Standard range of Lantern Lights and Skylights have been widely specified for many years. Recently we have introduced additional ranges of Dome Top Lanterns, Back-pitched Lean-to Lanterns, and Domelights (in both glass and 'Perspex'). Below we show our normal Lantern Light details of construction and opposite we list the standard types and sizes.

Few parts of a building get less maintenance than the skylights, and so all our materials are designed and made to survive long periods of neglect. All steelwork is HOT-DIP GALVANIZED after fabrication, all joints solid welded, ventilators formed of solid rolled double weathered casement sections, and loose weatherings are avoided. On the following pages we show details of a few of the more interesting Purpose-made Lanterns, Domes, Rooflights and Canopies which we have supplied recently, as an indication of the wide range of products carried out in this Department.



HOPE'S Standard Lantern Lights & Skylights



Types and Sizes

SL 44 : 4' x 4'	SL 66 : 6' x 6'	SL 108 : 10' x 8'
SL 64 : 6' x 4'	SL 86 : 8' x 6'	SL 128 : 12' x 8'
SL 84 : 8' x 4'	SL 106 : 10' x 6'	SL 1010 : 10' x 10'
SL 104 : 10' x 4'	SL 126 : 12' x 6'	SL 1210 : 12' x 10'
SL 124 : 12' x 4'	SL 88 : 8' x 8'	SL 1212 : 12' x 12'

Sizes are overall finished curb

Standard Skylights (made to the same sizes and details as the Lanterns listed above, but without upstand) are designated by prefix 'SS' when fixing to wood curbs or 'SST' when fixing to concrete. For further details see List No. 197.

HOPE'S Standard Back-pitched Lean-to Lanterns



Types and Sizes

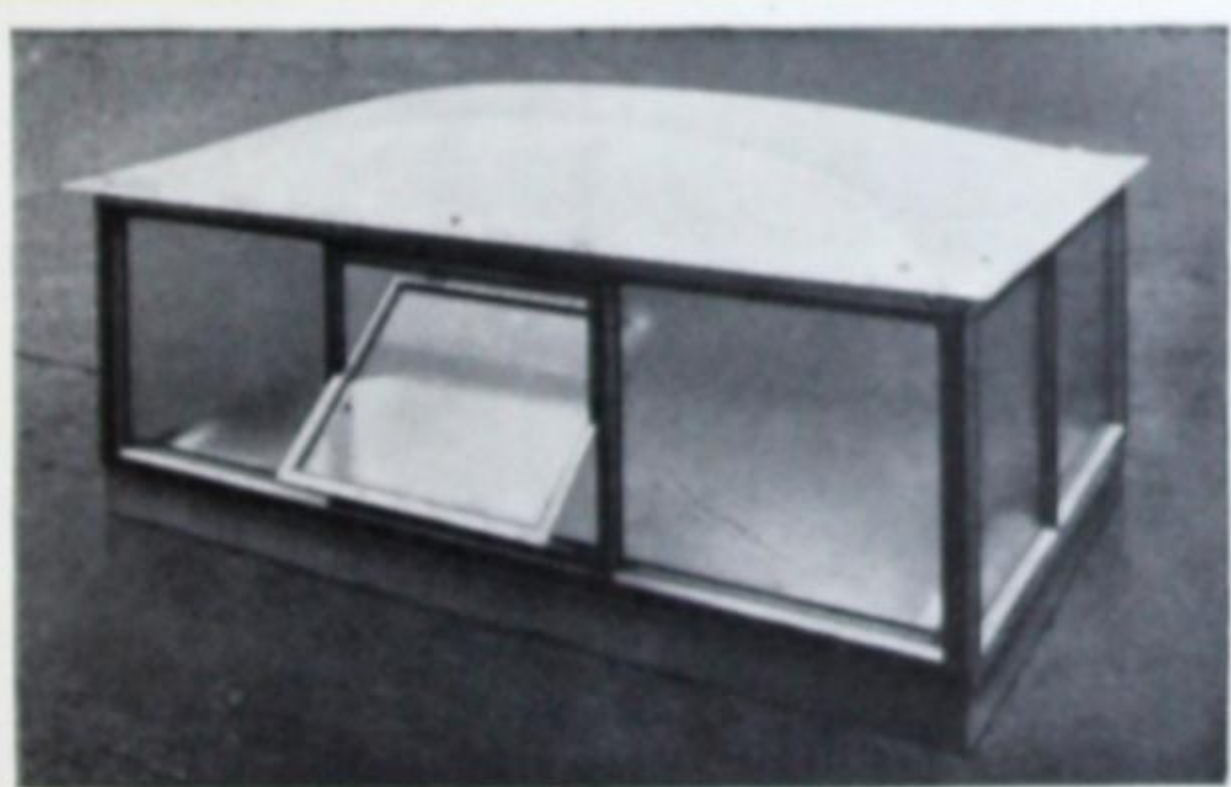
BPT 44 : 4' x 4' with one ventilator in the upstand
BPT 64 : 6' x 4' with one ventilator in the upstand
BPT 84 : 8' x 4' with one ventilator in the upstand
BPT 104 : 10' x 4' with two ventilators in the upstand
BPT 124 : 12' x 4' with two ventilators in the upstand

Sizes are overall finished curb

Upstands are 18" high only (sight size)

For further details see List No. 345.

HOPE'S Standard Dome Top Lantern Lights



Overall Sizes (finished curb sizes are printed in red)

Dome 36" x 36" (32" x 32")	Dome 60" x 42" (56" x 38")
42" x 42" (38" x 38")	72" x 48" (68" x 44")
48" x 36" (44" x 32")	96" x 48" (92" x 44")
48" x 48" (44" x 44")	72" x 72" (68" x 68")

Domes are 'Perspex', 1/4" thick

(Alternative: rough cast glass, 3/8" thick)

Upstands are 12" or 18" high, sight size.

For further details see List No. 339.

HOPE'S Standard Domelights

in Glass—3/8" Roughcast
or 'Perspex'—1/4" Opal



Overall Sizes

Circular:	24"	30"	36"	42"	48"	54"	60"	66"	72"	
Rectangular:	24" × 24"	36" × 36"	42" × 42"	48" × 36"	48" × 48"	60" × 42"	60" × 60"	72" × 72"	72" × 48"	96" × 48"

■ Supplied in glass only

■ Supplied in glass or 'Perspex'

For further details see: List No. 346 'Perspex' Domelights, List No. 277 (Circular) & List No. 376 (Rectangular) Glass Domelights.

HOPE'S *Lanterns & Laylights*



BIRMINGHAM UNIVERSITY

Mechanical Engineering Block

Peacock and Bewlay, Architects

This glazed ceiling over a drawing office provides daylight so evenly distributed that if a pencil is stood on end in the centre of the room no appreciable shadow is discernible. It measures 70' x 45', and is coffered to provide invisible means of ventilation, being stepped down from the centre in three levels with spaces between, through which circulates fresh air from ventilators in the lantern light above.

Ventilators are electrically operated from a control panel which indicates the degree of opening, and is conveniently placed in the drawing office below.

The ceiling light is glazed with 'Plyglass', the inner sheet of which is white obscured glass, while the cavity between the two sheets contains a layer of fibreglass to reduce the solar heat in summer, and prevent heat loss in winter.

The lantern light is glazed with patent glazing bars and wire-reinforced glass. Access is provided through glazed doors at the lantern ends to permit cleaning and replacement of electric light bulbs.

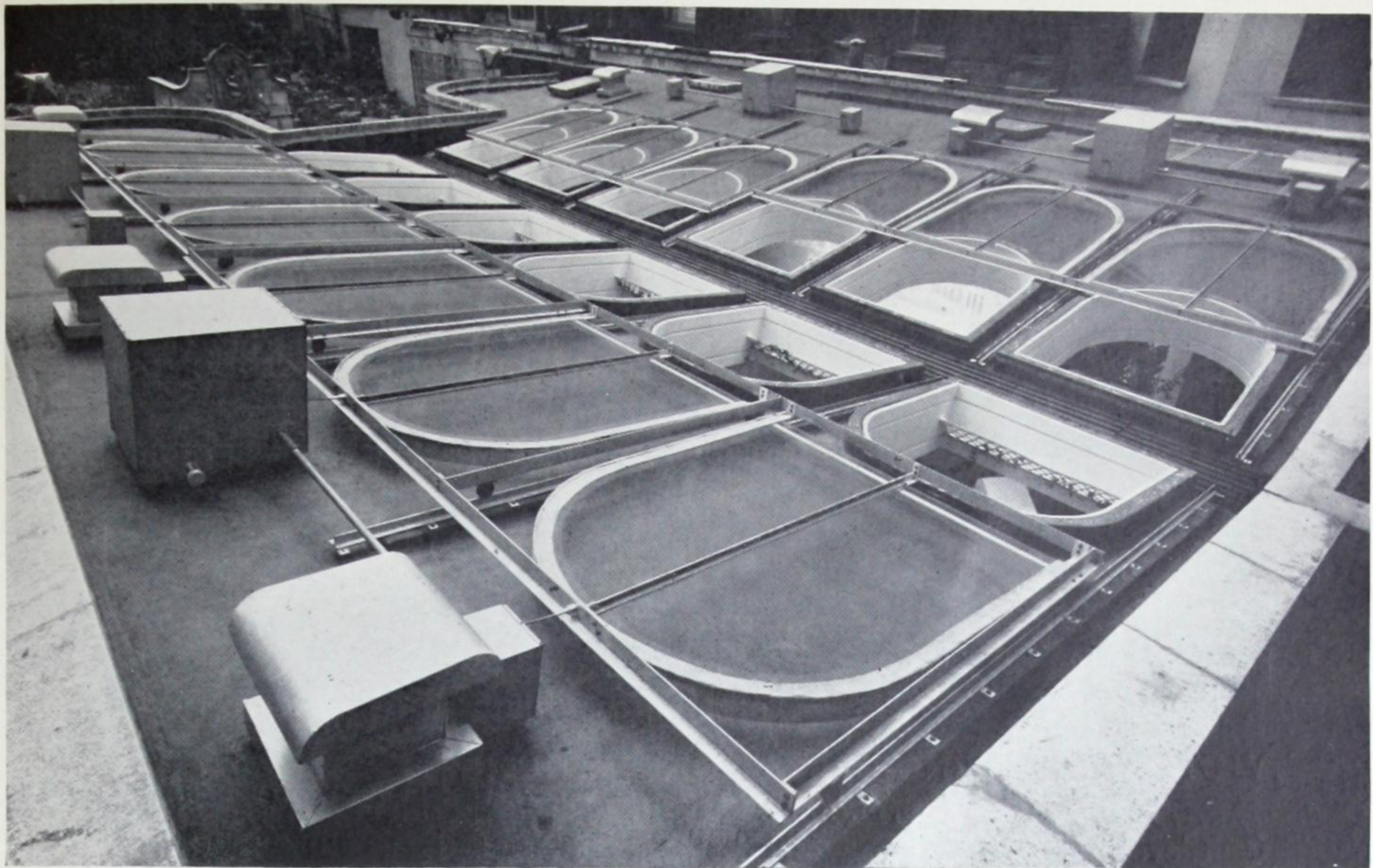


Exterior of Lantern Light



Interior, above glazed ceiling

HOPE'S *Sliding Rooflights*

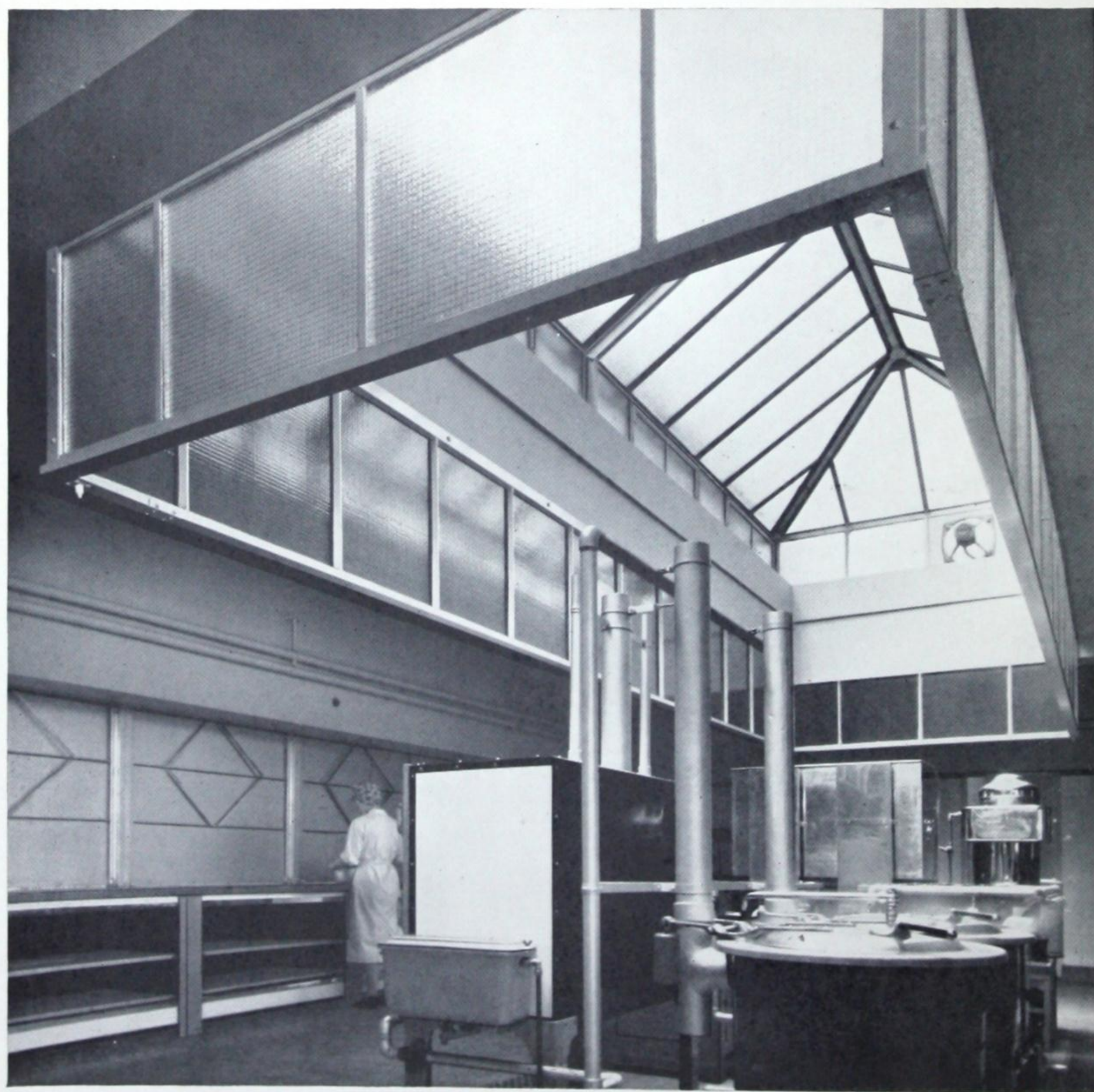


The MIRABELLE RESTAURANT, Curzon Street, London, W.1
These semicircular rooflights slide back noiselessly at the touch of an electric button giving a clear opening to the sky on hot summer nights.

HOPE'S *Glazed Canopies*

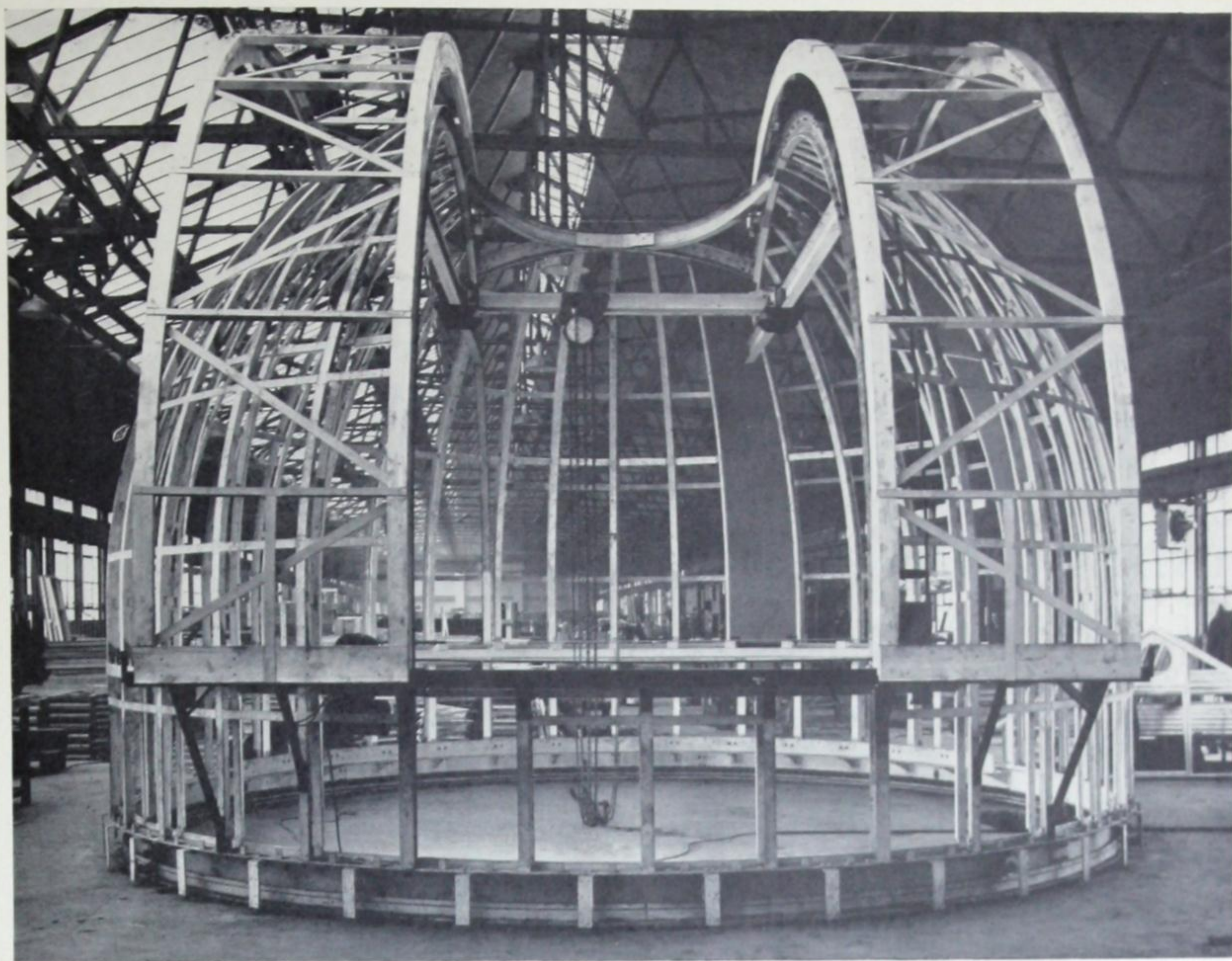


VICTORIA PASSENGER STATION, MANCHESTER *Main Entrance*
J. Taylor Thompson, M.I.C.E., Chief Civil Engineer, British Railways
 Cantilever Canopy 197' long with galvanized cantilevers, fascia and eaves gutter



SWAN VILLAGE CANTEEN for WEST MIDLANDS GAS BOARD
S. N. Cooke & Partners, Chartered Architects
 Valance type canopy suspended below a lantern light, through which steam is extracted by means of opening casements and electric fan

OBSERVATORY DOME



The Observatory Dome during assembly in our Lantern Light Shop

UNIVERSITY OF ST. ANDREWS, SCOTLAND

David Carr, F.R.I.B.A., F.R.I.A.S. and Stuart R. Matthew, A.R.I.B.A., A.R.I.A.S., Architects

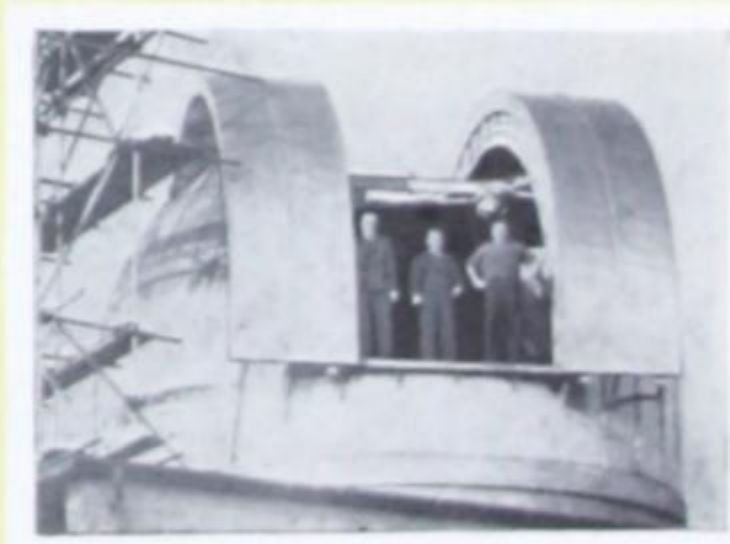
The Steel Frame of this complex structure, 18' 6" high, 24' 3" diameter and weighing 9½ tons, was designed, fabricated and assembled by our Lantern Light Department. It is lined with masonite ⅛" thick, and covered externally with hardboard ¼" thick, which in turn is dressed with an outer skin of 20g super-purity aluminium. This double skin is secured to both sides of the structural framework enclosing an insulating air space of 4¼" between the members.

Operation and Control of the Dome and Observer's chair, involving 7 separate mechanical movements, was devised and installed by our Gearing Department to provide the Observer with complete control, by push-button and hand gear, from his chair.

Of these 7 mechanical movements, three are involved in controlling the dome, and four in moving the Operator's chair.

The Dome: (1) may be revolved on its base by an electric motor and reduction gear (2) the shutters slide horizontally away from each other, leaving an aperture 8' 0" wide through which the telescope is pointed, and (3) a blind may be automatically drawn up and over the aperture to provide protection for the observer.

The Observer's Chair: (4) slides to the right or left around the inside wall of the dome (5) can be raised or lowered vertically (6) swivels freely through 180° on a cantilevered support—all controlled by hydraulic gear—and (7) pivots on its own axis by hand-operated gear. All these movements are arranged for easy and convenient operation from the Observer's chair.



Dome during erection



Demonstration Model

HENRY HOPE & SONS LTD SMETHWICK, BIRMINGHAM, 40

Telephone: SMethwick 0891

Telegrams: Conservatory Telex Birmingham

LONDON	Office & Showrooms 17 Berners St., W.1 Telephone: MUSeum 8412
BELFAST	Scottish Mutual Assurance Bldgs., 16 Donegall Square South Telephone: Belfast 22687
BIRMINGHAM	City Chambers, 319 Broad Street Telephone: MIDland 0398
BRISTOL	3 Berkeley Square, 8 Telephone: Bristol 23800
DONCASTER	Wheatley Hall Road Telephone: Doncaster 61028
GLASGOW	1 Blythswood Square Telephone: City 4928
LEEDS	Provincial House, Albion Street Telephone: Leeds 20708-9
LIVERPOOL	49 Rodney Street Telephone: Liverpool Royal 1594
MANCHESTER	123-4 Royal Exchange, 2 Telephone: Blackfriars 8310
NEWCASTLE-ON-TYNE	Maritime Bldgs., King St., 1 Telephone: Newcastle 20260
SEVENOAKS	London Road, Riverhead, Sevenoaks, Kent Telephone: Sevenoaks 51021-2
SWANSEA	Powell Duffryn House, Adelaide St. Telephone: Swansea 55342

and representatives in principal towns

ASSOCIATED COMPANIES OVERSEAS

HOPE'S WINDOWS INC., Jamestown, NEW YORK & 101 Park Avenue, NEW YORK CITY
CRITTALL-HOPE METAL WINDOWS (S.A) LTD., Industria, JOHANNESBURG
also at PORT ELIZABETH, CAPETOWN & DURBAN

CRITTALL-HOPE (RHODESIA) LTD., Salisbury, SOUTHERN RHODESIA

SMITH & PEARSON LTD., Newcomen Iron Works, Ossory Road, North Strand, DUBLIN

HAWKER SIDDELEY AUSTRALIA (PTY) LTD., 100 Victoria Parade, E. Melbourne, AUSTRALIA

S.A. VITRAGE 'ECLIPSE' 11 & 11 bis Passage St. Sebastien, Paris 11e, PARIS

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HOPE'S *Products*

METAL WINDOWS *of all kinds*

Purpose-made Windows in galvanized steel, bronze or aluminium for all buildings where quality is of first importance	<i>List No. 260</i>
Bronze Windows for Passenger Ships	<i>List No. 232</i>
Double-hung vertically sliding windows in aluminium	<i>List No. 349</i>
Curtain Walling in galvanized steel or aluminium	<i>List No. 295</i>
Standard Domestic Windows and Doors	<i>List No. 356</i>
Standard Reversible Windows for multi-storey flats	<i>List No. 356A</i>
Standard Lok'd Bar Sash for industrial buildings	<i>List No. 309</i>
Standard Projected Windows	<i>List No. 347</i>
Standard Tropical Projected Windows— <i>special overseas types</i>	<i>List No. 370</i>
Ventana Louvres	<i>List No. 372</i>
Flush panel glazed screens	<i>List No. 340</i>

PRESSED METAL PRODUCTS *for the building trade*

Standard Doorframes	<i>List No. 254</i>
Window Subframes, cills and trim	<i>List No. 354</i>
Hollow metal doors	<i>List No. 283</i>
Tropical Doors and Windows for godowns and labour quarters	<i>List No. 283</i>
Sunbreakers, fixed or movable, in steel or aluminium	<i>List No. 283</i>
Pressed Steel Balconies for multi-storey flats	<i>List No. 355</i>

ROOF GLAZING, *Lantern Lights, Domes and Glazed Canopies as described in this catalogue*

GEARING *for remote control of opening lights, casements, etc., hand, electric or hydraulically operated*

Cable Control Gear:	<i>List No. 364</i>
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BUS SHELTERS

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HARDWARE *and Door Furniture*

Metal Letters	<i>List No. 360</i>
Rainwater Heads	<i>List Nos. 359 and 371</i>
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